FEDERAL ELECTRIC CORPORATION

BIG RALLY II COMMUNICATION SYSTEM

TEST DATA

PHASE I

VOLUME IV

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FEDERAL ELECTRIC CORPORATION

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an associate of

INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION

# FEDERAL ELECTRIC CORPORATION BIG RALLY II COMMUNICATION SYSTEM TEST DATA PHASE I VOLUME IV

ESD-TDR 64-451

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APPROVED CORPORATION PARAMUS, NEW JERSEY PARAMUS INDUSTRIAL PARK

PARAMUS, NEW JERSEY

OF INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION 6271955 DATE SHEET ELECTRIC TEST DATA VOLUME IV PHASE I REVISIONS FEDERAL ON FEC NO. DESCRIPTION SIZE SERVICE A SUBSIDIARY CODE IDENT, NO. SCALE FEC SOURCE SIGNATURE & DATE A ORIGINAL ISSUE SYM ZONE lend APPROVALS THE PROPERTY OF FEDERAL ELECTRIC CORP. ARE ISSUED IN STRICT CONFIDENCE AND SHALL NOT BE REPRODUCED. OR COPIED OR USED AS THE BASIS FOR PERMISSION." CHECKED OTHERWISE PROVIDED BY CON-DRAWN ELECT OTHER MECH 400M STDS FEC OCITVIE PRESS, INC., BROCKLYN 17, N. Y. REPROVEL NO. NEXT ASSEMBLY FIRST USED ON UNLESS OTHERWISE SPECIFIED TOL. APPLY TO STOCK SIZES DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES APPLICATION COML. 61 GROUP 9 G 9 9 9 A

A

	SIZE	CHECKED BY DATE	FEDERAL ELECTRIC CORPORATION	FEDE
6271955	NT. NO. DWG	PREPARED BY STEET DATE		
	8-1 to 8-65	Power Generating System	SEC VIII Power G	
	7-1 to 7-20		SEC VII Alarms	
	6-1 to 6-8	, AN/MRC-35	SEC VI Radio Set,	
	5-1 to 5-63	Radio Set, AN/MRC-85	SEC V Radio Se	
	4-1 to 4-50	Radio Set MW-503-A Microwave	SEC IV Radio Sel	
	3-1 to 3-35	ire & Technical Control	SEC III Order Wire &	
	2-1 to 2-51		SEC II Multiplex	
	1-1 to 1-49	est	SEC I System Test	
	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION		ITEM QTY OF NO. REOD M
7 991129		LIST OF MATERIALS		
DDAWING HIMBER				

SHEET

FEC NO.

4

FEDERAL ELECTRIC CORPORATION
SERVICE PARAMUS INDUSTRIAL PARAMUS, NEW JESSET
A SUSSEMANY OF INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION

# FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET

BR II/91 SITE GPA . VD Sending .

SYSTEM TEST PHASE 1

ID TO GPA

# 1. INSERTION LOS S VS. FREQUENCY

			FREQU	ENCY	9 1 T		•	EXPEC'	TED	7			
		REFERENC	E 1000	cps 🗀			· •		±.5 d				
	1	Sagar de la	300	With	respect	to 1000	cps RE		-7.4				
l			400	H	II.	n n	и п	/3.1 /3.1	-4.6 -3.1			(A)	
			2400		n	ur II	n 'n	/3.1	-3.1	db		•	
			3000		n	19 19	. u n	/3.1 /3.1	-7.4				
Ì			5400	HIGH C	GROUP CH	ANNELS		70.4	-7.4	. ub	•		
	FREO	. 1	2	. 3	4	5	., <u>6</u> .	7	8	9	10	11	12
1	1000	£7.0	£7.0	: 17.0	£7.0	£7.0	47.0	£7.0	£7.0	£7.0	17.0	£7.0	17.0
	300	£7.0	13.2	13.8	£6.5	H.8	4.5	45.2	18.0	14.3	16.7	18.5	15.0
	400	6.8	5.3	. 5.5	6.5	6.0	6.3	7.4	7.5	6.0	6.7	7.1	6.8
	600	6.8	7.5	7.5	7.4.	7.4	7.3	.7.2	7.5	. 7.3.	7.6	7.6	7.4
Ġ.	2400	8.2	7.5	7.6	7.0	7.1	7.5	6.8	8.2	7.5	6.2	6.0	8.0
ł	3000	8.3	7.2	7.4	6.0	6.5	6.4	7.6	7.8	7.2	5.4	6.5	8.3
1	3400	7.8	6.2	6.3	6.5	5.3	5.8	6.8	5.1	7.2	5.5	5.0	6.8

NOTE:1 ALL READINGS ARE POSITIVE

2 READINGS TAKEN AT SITE GPA WITH STATION IDASENDING THE TONES

DA TE 9/4/63

TESTER

SUPERVISOR

QUATLITY ASSURANCE.

GEEIA

# FEDERAL ELECTRIC CORPORATION BIG RALLY II PHASE ONE SYSTEM TESTS

BRII/91 SITE GPA ID Sending

# Insertion loss vs. Frequency Test

FREQ.					CHANN	ELS 1	thru 1	2 of t	he HIGH	H GROUP		
	1 .	2	3	4 .	5	6	7	8	9	10 1	1	12
1000 cps	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0 7	•0	7.0
300 cps	7.0	3.1	4.2	6.6	3.8	4.1	4.7	7.4	4.7	4.0 8	.0	4.7
400 cps	6.8	5.0	5.7	6.6	6.1	5.8	6.4	6.5	6.1	6.0 7	.0	6.6
600 cps	7.0	6.8	7.5 -	7.7	7.7.	7.0	7.5	6.9	7.5	7.0 7	.3	7.3
2400 cps	7.8	7.5	8.1	7.4	7.3	7.0	7.2	8.0	7.5	5.9 6	.2	7.9
3000 cps	8.4	7.1	8.5	6.2	6.8	5.5	7.6	7.6	7.0	4.8 6	.3	8.3
3400 cps	8.0	5.2	6.7	6.6	6.3	5.1	6.8	4.2	6.7	4.6 5	.3	6.8

NOTE: 1 READINGS WERE TAKEN AT SITE GPA USING HP-400D VTVM

2 A XXXXXX VARIATION OF APPROXIMATELY 1db WAS OBSERVED ON THE METER WHILE THESE RECORDINGS WERE BEING MADE.

3. ALL READING ARE Positive

DATE 9/6/63

TESTER ASSURANCE Along Rangely 19/1

GEETA REP. Rose les

2 rd hi group Test - After Repair of filter AT Site CK

# FEDERAL ELECTRIC CORPORATION BIG RALLY II PHASE ONE SYSTEM TESTS DA TA SHEET

BRII/91 SITE GPA ID SENDING

1. INSERTION LOSS VS FREQUENCY

	LOV	GROUP				EXPEC	TED						
	1	000 op	s R	eferen	CE	£7.0	4.5 d	bm					
	The state of the s	WITH 300 400 600 2400 3000 3400	RESPEC	T TO 1	000 cps	4.00	-12.6 -7.0	db db db					
FREQ	CHANNEI ID 7	S OF T	HE LOW	GROUP 10	11	6X	1	2	3	4	5	12	
	GPA 1							8	9	10	11	12	
1000	47.0	47.0	£7.0	47.0	47.0	<i>f</i> 7.0	£7.0	77.0	47.0	17.0	£7.0;	47.0	
300	77.7	15.5	46.8	f7.4	-5.6	12.1	£7.0	19.2	45.1	15.5	410.9	,46.7	
400	17.4	45.5	46.5	16.8	47.7	9	£7.0	46.8	16.3	16.7	47.8	46.8	
600	17.7	47.4	£7.6	18.0	12.8	+3.5	18.0	46.9	18.1	18.0	47.7	47.2	
2400	£7.4	×8.1	49.0	18.5	110.9	12,2	18.7	£7.3.	18.6	47.6	43.5	47.4	
3000	<i>f</i> 7.3	48.3	18.7	48.2	49.8	411.8	18.7	46.1	48.7	£5.6	18.2	47.0	
3400	<i>‡</i> 7.0	4.1	46.5.	47.2	£8.5	47.0	47.3	41.8	16.3	4.2	46.7	4.9	
200	The Proof of the							•	1				

N OTE 1. LEVEL VARIATIONS OF .3 db MAX. WERE OBSERVED ON THE METER WHILE THESE READINGS WERE BEING TAKEN.

2. THESE READINGS WERE TAKEN AT SITE OPA WITH SITE ID SENDING THE TONES.

DATE G SCA 1963

SITE SUPERVISOR Juneary

TESTER SALECULAR

QUALITY ASSURANCE STONE CARECULAR

GEELA O SOLY CO

\*Ch6, ok on retest. See next sheet.

### **EUROPEAN REGION**

# GROUND ELECTRONICS ENGINEERING-INSTALLATION AGENCY

# UNITED STATES AIR FORCE APO 794, U S Forces



REPLY TO

Team Leader, Big Rally II T & A.

SUBJECT :

Retests, BR II Phase I System Tests

23 September 1963

Test Director
Big Rally II
APO 794, US Forces

- 1. Following are retests of specific items that did not originally successfully pass the Phase I System Test.
  - a. Insertion Loss vs Frequency: (21 Sep 63)

Channe	1 <u>#6</u> I	ow Group		*Channe	al #1	l Low Group	)	
1000N	REF	$\pm 7.0 - (\pm 0.5)$		1000N	ref	+7	(± (	0.5)
300		+4.5		300				
400		+6.25		400				
600		+7.8		600		-		
2400		+6.8		2400				
3000		+6:4		3000				
3400	٠	+3.9		3400				

GERALD R. PELANT T&A Team Leader

\*Bad Channel Modulator at ID.

IN-ALU-IT

# FEDERAL ELECTRIC CORPORATION BIG RALLY II TEST PROCEDURES SYSTEMS TEST

This errata sheet should be attached to errata sheet, Systems Test, dated 22 August 1963. (For ID-GPA) insertion loss us Engagerry

## HIGH GROUP

Treq.		Limits							Ch	annel	3				
			-X- 1	2	3	4	5	6	7.	8	9	10	11	12	
00		+7.0 + 0.50	ib +7	17	+7	+7	17	+7	17	17	17	1"/_	77	11	
300		+3.1 - 7.4	+ E.b	+ 25	+25	13.5	+3.€	15.2	25.2	,5.E	7- 4	+3.5	1.5	14,8	
00		+3.1 - 4.6	+ 4	14.5	11-12	+5,3	16.2	j [-	1.5.6	7.5	16-3	16.8	itel	17.2.	
600		+3.1 - 3.1	+7.7	<del>-7</del>	+ E.	+8.2	+ F.4	17,8	17.5	rtit	18.1	18.4	15:	+7.F	
00		+3.1 - 3.1	7 9.6	+9.2	9.6	+8	+ 7	175	16.9	18:5	16.1	7.5.F	1/-	18.7	
3000		+3.1 - 4.6	+10	+7.2.	19.2	16.2	15.7	15.8	18.6	17.2	17.7	13.8	11-5	18	- 1
00	A	+3.1 - 7.4	+ 9.5	+5.2	÷フ	+6-2	+5	+4	169	12.5	16.7	73	14.8	4.8	

Channel 1 of High Group is affected 0.3db worse because of Thru Group Filter. On Loop it is  $2 \times 0.3 = 0.6$  db.

# LOW GROUP

Freq.	Lim	its							Ch	annel	s				
			1	2	. 3	4	5	6	7	8	. 9	10	11	12	18.3
1000	+7. +	0.5db	+7	ナフ	+7	ナフ	+1	+7	71	7.1	17	j~1	i. 7	7.7	
200	+4.0 -	12.6	+ 3.4	71.9	18.2.	15.2	19.2	-1.8	11615	74,9	17.1	49	~30	155	. "
400	+4.0 -	7.0	+45	15.5	1-7.5	F1.2.	15.1	=7)	78.9	1-11.8	16.5	17.4	=10	17.7	
600	+4.0 -	4.0	+ [.]	+7.2	+9.0	18.8	1-7.5	1.5	+\$15	17.5	1-8.4	1-90	F.3.E	11.8.	
2400	+4.0 -	4.0	+ 45	j7.2	19.7	+7,5	18.5	110.5	19.0	19.5	15.9	1-5.5	19.E	17.8	
00	+4.0 -	7.0	+5.5	14,9	+10	13.5	+7,5	1-4.5	1-8.5	76.15	19.0	175	1 E.l-	1-1-18	
3400	+4.0 -		The second second		1-4,5	13.9	15.5	1.11	1.11	-1,5	15.8	1.7,0	16.1	-4.5	
1	-X-	REFE	RENCL	1000	~1.1	FYEL	neljus	TEd A	TVF	Hor. 1	6217	10.5	DBM		

System Test Figures
NETE: Levi Group, Chan Ho, 6 & 12 Neamally Tenninals ATTE, For pumpesse of Test
They were patched than to 6.7.0;
Channels 65, 11 of Low group did Not meet specs. ON All Frequencies.

13.6. 13000 21 R f. Charl. 1-5

# FEDERAL ELECTRIC CORPORATION, BIG RALLY II PROJECT DATA SHEET SYSTEM TEST PHASE I

# 1. INSERTION LOSS VS. FREQUENCY

· Frequency	Expected	Actual
Ctrouit ID to IGC		
1000	√7 <u>√</u> 0.5 dbm	d b m
Wit	h respect to 1000 cps 1	evel
300	√3.9 -11.0 dbm	d b m
400	+3.9-4.1 dbm	d b m
600	√3.9 -1.8 dbm	d b m
2400	≠3.9 -2.0 dbm	d b m
3000	√3.9 -3.5 dbm	dbm
3400	√3.9 -8.6 dbm	dom.
Circuit: ID to GEL	CH9 - Hi GROUP	
1000	+7±0.5 dbm	+ i-15, dbm
Wit	h respect to 1000 cps le	evel
300	√7.7 -16.7 dbm	+ 3.3 dbm
400	√7.7-6.1 dbm	7 5,5 dbm
600	√7.7-3.4 dbm	1 7.5 dbm
2400	√7.7-4.0 dbm	1- 8.3 dbm
3000		<u>.j. /. 7</u> dbm
3400	√7.7 -15.8 dbm	+15 dbm
Note: 1000 1- BEFR.	newer adjusted or VA H	te, To 17 20.5 DBM

Sheet Ports Can

# FEDERAL ELECTRIC CORPORATION, BIG RALLY II PROJECT DATA SHEET

SYSTEM TEST PHASE I

# 1. INSERTION LOSS VS. FREQUENCY

Frequer	ncy Expected	Actual
Circuit II	D to IGC	
1000	≠7 ± 0.5 dbm	dbm
	With respect to 1000 cps	level
300	₹3.9 -11.0 dbm	dbm
400	+3.9 4.1 dbm	d b m
600	+3.9-1.8 dbm	d b m
2400	₹3.9 -2.0 dbm	dbm
3000	√3.9-3.5 dbm	dbm
3400	√3.9-8.6 dbm	d b m
Circuit:	ID to GEL OH 7 he GASUP.	
1000	77 7 0.5 dbm	17.5 dbm
	With respect to 1000 cps	level
300	√7.7 -16.7 dbm	1 12 dbm
400	√7.7-6.1 dbm	1 / dbm
600	√7.7-3.4 dbm	1 10.5 dbm
2400	7.7-4.0 dbm	196- dbm
3000	√7.7-7.1 dbm	+ 8.8. dbm
3400	√7.7-15.8 dbm	177 dbm
Note: ic	STON REFERENCE Adjusted At VF AL	to to toto DBM.

6 Sept. 63 Short of 3

# BIG RALLY II PROJECT

### DATA SHEET

### SYSTEM TEST PHASE I

## I. ENVELOPE DELAY DISTORTION

Group No. Low ID/GPA.

## ACTUAL

										2	
Channels	2	3	4	. 5	6	7	. 8	9	10	<sup>†</sup>	12
To Station Frequency											
-300		7									
500											
700											
900 SS 6.8	6.6	6.2	120	50	6-2	100	6.1.	100	120	6.7	7.7
1000 SS 6.7	6.5	6-1	62	5.9	6.1	6.6	6.4	6.1	6.2	6-2	7.7
1200 55 64	6.3	6-0	25	517	519	4.4	140	6.0	6.0	1-0	77
1400 55 6.5	100	E.0 125	17.5	5.9	5.9	140	6.2	100	13	6.4	1.50
1600 MK 1.50	7.5	55	165	116	1.55	15.6	14.5	60	105	30	1.35
1800 MR 120	100	6-2	1.35	6.0	135	30	1.30	10	6.3	6.6	7. E 120
2000 108 125	2/10	6-75	1.30	5.9	6.0	10.10	£.3	1-7	6.3	6.4	7.9 140
2200 MR 35	6.3	6-7	96	5.9	5.9	146	2.5	63	6-75	135	1200
2400 NR 35	1:3	15-7	145	5.9	5.9	6.6	30	6.5%	100	1:00	7.1 1.500
2600 MH 96.	6.3	16.7	1-7.	5.9	76	50	6-3	4.5	6-2	1.15	7.1 1700.
-2800 Note MR=	Thir A.	tant A	FACTOR	9 50	14151	selin	in	1.7%	Tecció,	15.71	(1415 P)
3000 REALT	1118/6	F 595	1.5	E-9111	1804	15 M	15/10	ECNE	3.		/ /.
3200 Service	71.0 S	Witel.	5511 10 6 11 11	NIG C	Wille	SEICH	15,201	150110	100 11	77/1.	In while
}	1	Those						1			MICHESTCOMAS

SS = SWITCH SETTING

+ BAND PASS FILTEN AT STATION ID FALLY INCORPECT FREQUENCY MESPENSE

7 50/21,63 1-8

BR11/92

# FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET SYSTEM TEST PHASE I

I. ENVELOPE DELAY DISTORTION

1D/GFA

Group No. Low

ACTUAL

Chan	nels l	2	3	4	5	6	7	8	9	10	11	12
To Sto Frequ		-										
,	1				ĺ							
3-0-0-	_											
500		ļ.,,										
7-0-0	410	355	265	291	3/15	265	450	410	100	377	4	1170
900	1-200	1-190	+175	+225	+150	1170	+200	1250	1200	133c	1540	165
1000	D	0	0	67	0	0	8	0	0	0	0	6
1200	-170	-14/5	-90	-7.5	90	-95	-160	-160	-90	165	-140	-7/1
1400	-125	-150	120	175	155	-30	-60	-116	to	1 75	1370	150
1600	50	-25	7125	† 165	1210	155	+75	145	160	1215	1.530	11.35
1800	-80	0	1140	1135	1235	135	130	130	160	1190	1465	127
2000	-80	-60	1175	1/30	180	-40	130	-20	150	1155	1360	1390
2200	-/65	-165	7105	190	125	-60	-60	-7.5	7.35	165	1925	1600
2400	-149	-11.5	1/10	1145	190	-55	775	-70	110	1100	145%	1900
2600	-216	-116	1170	1140	1160	-30	-9:50	75	195	1140	1.5.55	7/11:5
2800	BEN MYS	DRE I	dalin	10!	the d	InyA	l ive	~(PS:	Thing	1 1310	MICH	SACONT
3000	widenter	161115	les de	iny	5 7/6	MICHE	SECTION	15 91	PALE	1 714	N 11	1,00000
3200	17-47.5,11	18 17 5 5 71	end in	diar	1.5 11	11 11	s de	1999	5 491	Alle	10500	royls.
3400	1650 16	IN B	1,50	CPS								

Sheet t of 2

KR filest 7 Sept. 63

# BIG RALLY II PROJECT

### DATA SHEET

## SYSTEM TEST PHASE I

# I. ENVELOPE DELAY DISTORTION

Group No. High.

IP/ GPA

## ACTUAL

Channel	s I	2	3	4	5	6	7	8	9	10	11	12	
To Static Frequence													
.300													
-5-0-0-													
.7-00													
900 55 NR	7.5	3.0	2.6	2.6	37	2.6 50	2.6	7.8	2.7	16.5	3.2	3.7	
1000 35 2MR	3.5	3.0	2.6	2.6	2.7	2.6	2.6	2.5	2.7	2.8	3.7.	3.8	
1200 in R	3.3	2.7	3.4	2,3	25	2.3	2.2	30	2.6	2.8 40	3.1	3.7	
1400 ANE	3.2	2.7	2.7	2.3	2:7	2.3	7.4	150	2.6	2.8	3.1	3.7	
1600 MI	32	29	2.7	100	2.7	2.5	2.6	2.7	2.7	2.8	3.1	3.8.	
1800 MA	32	2.E 100	2.5	スト	3.7	140	30	200	125	1.50	135	3.8.	i . i
2000 MR	3.1	2.7	2.6	2.4	2.7	2.4	2.5	2.7	2.7	7.8	31	4.0	
2200 ANG	3.1	2.7	130	2.4	35	2.4	2.5	2.6	2.7	2.5	3.1	120.	
2400 <u>infi</u>	3.0	2.E	2.5 130	2.4	2.6 140	2.4	2.5	2.7	3.7	2.8	3.1	4.2.	
2600 MA	3:0	2.8 11t	2.5 120	2.4	2.6	2.4	7.5	2,7	140	2.6	3.2.	4.4	
2800/1/0/		THE	BUNG	REAL	ling of	S AEIN	IENT	TE M.	FTFA	in mil	1157708	roxs	
-3000		1		i			ţ					whole	<u>'</u> -
3200	NUM	DERS	indich	TE 19	CHAN	75 IN	MILL	540	vds i	Nhile	1110	TENTI	15
3-4-0-0		9 F 13	- 13		-			, ,,,,,,		4. CE ( 1. s	, 7. 11.5		

SEESWITCH SETTING .

Channels 5,6 \$ 12 TERMINATES AT 1.0.

17 Sept 1-13 1 1 16 15 1-10

# BIG RALLY II PROJECT

# DATA SHEET

# SYSTEM TEST PHASE I

1. ENVELOPE DELAY DISTORTION

ID/GYA.

Group No. High.

# ACTUAL

Channel	s I	2	3	4	5	6	7	8	9	10	11	12	
To Static Frequence													
-300-													
5-0-0													
700	(35	195	180	3/10	115	100	212	135	2.10	1ST	161	NET	
900	TIFE	+ 20	+ 45	+10	t.50	+50	1-15	+10	1.1.0	1116	1.5	-7.5	
1000	l'	O	O	<b>(</b> 5)	C	(2	0	C)	6	0	05	0	
1200	-140	-200	-40	-220	-125	-150	-255	-170	-70	7-18	-50	-55	
1400	-250	-150	1140	-140	-1 100	-1.30	-115	-50	-40	1.55	-5	-25	
1600	-200	-45	+10	1100	1-90	+35	+65	-20	+160	4-645	145	1125	
1800	-275	-100	C.	ľ	155	1-40	130	(,)	1125	1150	135	+175	
2000	-34/6	-7.20	1-80	-120	0	-90	-35	-65	176	+130	-30	1250	
2200	-3,70	-275	1130	-160	-6.5	-1/5	-60	-135	+13	1-80	-55	1350	
2400	-4/60	-120	1-30	-135	140	-45	-80	-35	150	175	-25	1.580	
2600	-485	-90	<u>+20</u>	-65	+50	-30	-6-5	-25	1140	1150	1115	1510.	
2800													
3-0-0-	BEAU	MAS	ARE	RELAT	IVE 7	o: II	E dE	19413	T 100	DEPS	·The	15 BY	
3200-			TICADS										
3400_	WIICA	OSEIO	vds 9	AEAT.	FA7	har.	0+10	000	05,	17-4	15.	WICHO	serond
	INdica	TES	That	The	dela	y 13	495	Shee	+ it o	f 2 rond	15 /E	35 th.	BNI

AT 1,000 0PS.

BR11/92

### BIG RALLY II PROJECT

DATA SHEET

SYSTEM TEST PHASE I

## I. ENVELOPE DELAY DISTORTION

Group No. Hi CH-9 LO-CH-7. 1D/GEL.

10	/ -												
					Α	CTUA	A L						
					•	9	-	7					
Channels I	2	3	4	. 5	6	マ	. 8	9	10	11	12		
To Station													
Frequency									-				
-3-00											,		
5-0-0		ļ											
700													
900 55						.01		C					
10 45						1,0		5,2					
1000 35						6.7		4,8					
1200 MR						6.4		4,3					
IVIA						10115		4,3			-		
1400 55						0.3		4.3					
1600 33						0.4		4/,3					
1800 MR						0.3		4.3					
MA						.035		0					
2000 3:	-					· 6.3		11.3					
2200 35						6.3		4/					
MI						, cit-		1015					
2400 <u>55</u>	-					555		0615					
2600 55	-					6.5		4					
-2800 Noll; MA	-1/16	getyn	1 REN	JING 1	75 175	Hel en	71181	SFIFE	INI	11/1/5	CONCI	's-	
3000 Note: MI	7/14/5	n AEL	ding	3 1= ,0	45 1-	15911	1/10	115 1	ichos	eren	15	, ,	
-5-5-	1///	ENS 1	4-25	1/100	EN TI	IN M	1/150	- Errol	White	140	72111	SINAK	ntr
3-200-	NZMI	161151	12/1611	E 176								4	
3400	130	BNGI.	PSZ	101h	CF17	AA 11/1	5666	1.71	119 123	Chin	9/2 15	= 70	
***************************************			الوفاسكوبينكسا			4							

VARIABLE PILEN. USED DETINEEN MUX OUTPUT Sheet I of 2 & TMS INPUT to bring the TEVEL durin

FROM +7 to A -ODBM.

7 Sept 63 19 0 000 1-12

# BIG RALLY II PROJECT DATA SHEET

BR11/92

# SYSTEM TEST PHASE I.

# I. ENVELOPE DELAY DISTORTION

Group No. Hich.g LOCH-7

	,					А	CTU	λL	_,				
Channel	s I	2	3	4	5	6	7	8	9	10	11	12	
To Statio Frequenc	y y												
-3.00													
500													
7-00							805		1185				
900							t 310		11/80.				
1000			,				0		0				
! 200							- 3.50		-430				
1400							-445		-500				
1600							-380		-480				
1800							-44.5		-4/70				
2000							-435		-506				12.
2200							-4/20		-785				
2400							-460		-785				
2600							-255		-785				
2-8-0-0 11/0-1	1 - Rich	dinas	BUCK	Elati	s is ter	The	Elay	211	ore	125:7	11151	1310	
												5 0/89507	EV
	Ì	l					1 '				1	in delay	
3-400-15				Į									

BR11/93

## BIG RALLY II PROJECT

## DATA SHEET

## SYSTEM TEST

I. HARMONIC DIS	TORTIO	N
-----------------	--------	---

		Expected	Act	ual
	Output level of both oscillator	rs ref.		volts
	Levels of harmonics	ref.		volts
				volts
	SEE ATTACHED DATA SHEETS FOR DATA			volts
				volts.
				volts
	% Distortion (All Circuits) End to End on MAX 5%, loop back.	тах. <del>2%</del>	3.37	%
2.	CIRCUIT MONITOR AND ALAR	M		Initial
3.	MASTER OSCILLATOR STABILIT	Y (1D)		
	Frequency	Frequency Cl		199:75, cps
	Frequency (after 30 days)	per month		cps
	Oscillator measurment performed 120 Oscillator chassis production Serial H.P. Model 524 D calibrated to Rugby Transmission period 8 September, 196	. # 8485874A01 r, England on 101		

DATE E. Sept 1.3

SUPERVISOR

QUALITY ASSURANCE\_

The above test to be repeated at 1200Z 7 October, 1963

GEE IA

# BIG RALLY II PROJECT

	DATA SHEET	IN - GEL LOOP
•	SYSTEM TEST	
L. HARMONIC DISTORTION	CHANNEL 7 GROUP 1.0	CHANNEL GROUP ///.
FUNDAMENTAL FREQUENCY		
	<u>466 cps 2650 MV</u>	400 cps 1150 MV
	1000 cps MV	1500 cps 1300. MV
HARMONICS	1-00cps 11.5 MV	<u>/-// cps // MV</u>
	<u> Fro</u> cps <u>/4</u> MV	FOCCPS O MV
	1100 cps 19 MV	1/00 cps MV
	1800 cps 85 MV	1500 cps 62 MV
· · · · · · · · · · · · · · · · · · ·	2400cps 21- MV	2400 cps
	3000 cps / 7 MV	3000 cps 17 MV
	1600 cps 8 MV	/200cps / C MV
	cpsMV	//////////////////////////////////////
,		/ 600 cps 60 MV
	of distortion	0/0 distortion
DATE 7 Sept. 63	The state of the s	(5.73)/6.
TESTER	4.05%	5124%
SUPERVISOR	FERMULA FOR	distantion, SEE page Ledunes System Tests
QUALITY ASSURANCE 1891	10 APAIL, 1963	
GEETA OF 12 Polarit		, ,
SHALE SPEC WAS KIRII	TEN FOR GELLIA LO	pop AS GPA/ID LOOP.
This specification	HAS BEEN EXCEEDED	ON GEL CHANTY

# HARMONIC DISTORTION

# ID/GEL Channel #9

Output level of both Oscillators

1000N REF 1500 M Volts

400N REF 1350 M Volts

Level of Harmonics

# 300 to 3500 cps

Frequency 600	срв	Milli volts	30
800	<u> </u>	<u> </u>	12
1200		-	32
14.00		-	15
1600		_	110
1800	<u>)                                    </u>	,	80
2000		_	24
24.00			52
2800	)		12

Formula found on page 11-8 BR II System Tests Procedures

% Distortion greater than 7

1-17

# FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

DATA SHEET

# SYSTEM TEST

1.	MARMONIC DISTORTION	Channel /	Group /-//
	FUNDAMENTAL FREQUENCY	'/ee cps	1.500 MV
	, and the same of	1 ree cps	1200 MV
	HARMONICS	Lee cps_	£_MV
	dom:	1300 cps	
		12/00 +600 cps	// MV
		1800 cps	10 10
	960-10	2480 eps	12 MV
		3000 cps	2.0 MV
		eps	MV
	elevening.	cps	W
	****	eps	MV
	,	eps	ΜV
;			
0/00	distortion = 1.79%		
	DATE	7 School 1	3

TESTER

GEEIA.

SUPERVISOR

QUALITY ASSURANCE

# BIG RALLY II PROJECT

DATA SHEET

1. HARMONIC DISTORTION	Channel 2	Group ///
FUNDAMENTAL FREQUENCY	1100 éps	2050 MV
	1000 eps	1200 MV
HARMONICS	575 cps_	
	900 cps	9 MV
	1600 1800 cps	30 MV
	1800 cps	
	2400 eps	/ 3 MV
	3000 cps	/_MV
	cps	VV
	cps	MV
		MV
	cps	MA
	eps	MV
of distortion	= 2%	
10 000 00 00	C = 4/0	
DATE	7 Sigot.	33
TESTER		
SUPERVISOR		-
QUALITY ASSURANCE	BEBER	2 1-18

# BIG RALLY II PROJECT

DATA SHEET

1.	HARMONIC DISTORTION FUNDAMENTAL FREQUENCY	Channel 3 <u>식당 6</u> 6ps	
	_	/ 000 cps.	1250 MV
	HARMONICS _	900 cps 1600 1500 cps	/O MV
		<i>1600</i> cps	
	· •	2400 cps	/ <u>/-</u> MV
	_	3000 cps.	
	_	/ <u>////</u> cps	<u>&amp;</u> MV
	_	cps	MV
		cps	MV
	-	cps	MV
		cps	MV
	% distortion =	1.44%	
	DATE TESTER	ZSipil. 6	3
	SUPERVISOR QUALITY ASSURA GEEIA	NCE B. E. Be.	- 1-19

# FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

# DATA SHEET

1. HARMONIC DISTORTION	Channel 4	Group /-//
FUNDAMENTAL FREQUENCY	4/00 cps	1/50 MV
	1000 cps	1250 M
Harmonics	ben cps	12.5 W
	Fro cps	VM
	1300 eps	
	1500 cps	1/8 MV
	<i>1900</i> cps	15 MV
	2000 cps	<i>♀</i> ?MV
	2400 eps	/// MV
	3000 cps	/MV
	cps	MV
	eps	M
% dis	tortion = 3,25	
DATE 7. Sigil 6	3	
TESTER		
SUPERVISOR	richash-nan	
QUALITY ASSURANCE 13. 8 130		9 9
GEEIA. NA fela		

# FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

# DATA SMEET

# SYSTEM TEST

1. HARMONIC DISTORTION	Channel_5	Group //	ZNd
fundamental frequency	1/00 cps	1400 W	1350
	/rer eps	14/00 MV	1300
		<b>A</b>	
Harmonies	<u>Loo</u> cps		7
	900 cps	6 PW	7
			1.
	1600 cps	65 MV	35
		20 W	7
	2000 cps	W 31	18
run# 1 % distortion 4.08%	2200 cps	12_W	12
remain 10000 to the second	2400 cps	25_MV	20
rem# 2 % destortion 2.67%			10
	28cc cba	JO IN	10
	3000cps	18 MV	4
The first water and the second second	3300 cps	10 MF	. 6
a section of the sect			

DATE 75006, 63

Tester \_\_\_\_

SUPERVISOR \_

QUALITY ASSURANCE 13 & 13es

GEEIN.

SIA Polout

MOTE: These dispersion TESTS WERE RUN TWICE

THE 1ST TIME ANT 1 OUT-OF-BAND SIGNALLING UNIT

DISABLED.

The 2MD TIME The SIGNALLING UNIT WHIS OFERATING

NORMALLY

# BIG RALLY II PROJECT

# DATA SHEET

1. MARKONIC DISTORTION	Channel (	Group //
FUNDAMENTAL FREQUENCE	1/00 005	1250 W
	coo_cps	1300 W
Karmonies		7 11
		26_W
	1200 cps	4 m
	24/20 003	11 170
	3666 cps	6 W
	cps	W
	cps	MV
	cps	WV
	eps	VI
		W
To distortion 1.74;	70	
DATE 7 Sept 1	33	
TESTER	**************************************	
SEPERVISOR	<del>internal</del>	* * * * * * * * * * * * * * * * * * * *
QUALTET ASSURANCE BE	Bess	
G.E.E.IA. SYRPLA	ust	

# BIG RALLY II PROJECT

# DATA SHEET

1. MARNOWIC DISTORTION	Channel 6	Group //
FUNDAMENTAL FREQUENCE	1/00 000	1250 W
		1300 W
Marmonles	1000 000	ファボ
	//con cos	26 W
		4 m
	24/20 cps	11 370
	3ccc ops	lo_NV
		lest.
	cps	W
	cps	MV
	cps	VEC
	079	W
To distortion 1.74%	70	
DATE 7 Sept 6	3.3	
SEPERVISOR		
QUALITY ASSUMANCE B. E.	Bess	
G.E.E.IA. & RPUL	/	

# BIG RALLY II PROJECT

DATA SHEET

SYSTEM TEST

1	1. HA	EMONIC DISTOR		Channel 7			
		FUNDAMENTAL	Arequency	Upn ops		13.50	
				1000 eps	1400	1350	M
		MARMONICS	ania.	900 eps	0	7	31V
				1400 cps	9	-/_	MA
			444	1600 cps	35	26	MV
			ethic	/ERD ops	22	1.5	110
	•		oin.	2400 cps	20	15	Jiv
	•	30	4404	3800 cps	8	6.	MA
			***	cps	elichadipers		MV
	•			cps			MV
		*	ØM-	cps	~~~		M.V
run#1	% distorte	$c_n = 2.27\%$ $c_n = 1.95\%$		cos			MA
rin# 2	of distort	Tin = 1.95%					_

DATE

THETER

SUPERVISOR

QUALITY ASSURANCE

GEEIA.

7 Sc/26.63

Bi E Bi

SR fefor

# PEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

DATA GITLET

# SISTEM TECT

1. TATHOUS DISTORTION FURDAMENTAL PRESUMENT	Channel &	Grownsthinness
AN ALLEGACIO DEL MENTE A PROCESSION - SEL PER ANNO 18 <sup>1</sup> SALVANORO DEL MENTE.	Marine 4 P. Commence Commence	man Indiana Commence IV
	1000 cps	1156 BW
Homonies	700 008	
The state of the s	A thing to the second s	and the second process of the second
	1600 000	2 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
	The same for the form of the same of the s	8 23
	2450 000	C 3 FF F
	3000000	taktoriskusineksterilijas alemaniskus ing in de de
	Management 073	NV samenement
	Anthropological designation of the property of the second	Briefler Even (Amphice Interior Interior Constitution)
	CCP approximation of the state	middlering dame are not tradely and
	HODErick-Indicated Control of the Co	ionalierto cautavas autoritari renovidencio (* 4 %
10 Distortion 1.98 %	9 T - 48.	*
/		
DEDE Ton Superior	and in the second	
and the state of t	in a Children Aminate	
ECCEPTATION DE	1) -	
QUALITY ASSURANCE A	and the same of th	
GEEIA. WRYLL		

# BIG RALLY II PROJECT

# DATA SHEET

L	HARMONIC. D	ISTORTION	Channel 7	Group ///
	FUNDAMENTAL	FREQUENCY	-	
			400 cps.	1250 MV
			i o o cps	1200MV
	HARMONICS		cps	MV ?
			Bl-no cps	
			1500 cps	VM §
	,		2000 cps.	5 MV
			2400 cps.	WV 3
			3000 cps	MV Ki
			cps	MV
			cps	WV
			cps	MV
			cps	MV
100	listortion =	1.74%		
E				
		DATE	2 Sipt. 63	
		TESTER		
		SUPERVISOR		
	1	QUALITY ASSU	RANCE 13 & Ber	1.
		GEEIN.	SIR Pilant	1-25

# BIG RALLY II PROJECT

# DATA SHEET

# SYSTEM TEST

L HARMONIC DISTORTION	Channel /c	Group /-//
FUNDAMENTAL FREQUENCY		
	400 cps	1350 MV
	1000 cps	1350 M
HARMONICS	1200 cps	₹ MV
	<u>il100</u> cps	
	1600 cps	35 W
	1800 cps	12 M
	2000 cps	
	2400 cps	VM OI
	3000 cps	15 MV
	3200 eps	MV To
	eps	MV
	eps	MV
distortion = 2.06 %		A part
The second of th		
DATE	750pt 63	
TESTER		
SUPERVISOR		
QUALITY ASSUR	PANCE BERTON	• ;
GEEIA.	JR felo.	1-

# BIG RALLY II PROJECT

# DATA SHEET

# SYSTEM TEST

L	HARMONIC DISTORTION	Channel_//	Group //
	FUNDAMENTAL PREQUENCY		
		(/00 cps	1350 W
			1300 W
	MARMONICS '	/200 cps	7.80
		1400 cps	A_MV
		/600 cps	36 M
		/500 cps	18_M
		2400 cps	19 IN
		3000cps	12 M
		cps	MV
		cps	M
		cos	IW
		2 CD	MV
0/0	distortion = 2.48%		
	DATE	25cpt. 63	<b>A</b>
	TESTER	40000000000000000000000000000000000000	
	SUPERVISOR	ANCE BEBER	
	GEEIA.	SIB Plant	1-

# DIG RALLY IX PROJECT DATA STEET

# SYSTEM TEST

L HANNONIC DISTORMICS	Chonnol 12	Group //i
Fundamental frequency		
	1/00 cps	1600 W
	1000 cos	1350 M
Parmonica	1200 cps	7 117
	1410 ops	12 11
	ibte eps	38 W
	LECC ops	16 M
	2000 cps	6 137
	2:100 eps	15 117
	2000 000 marin	L MV
	CDS	W
	EQO <sub>QUARMONAMAR</sub> PDS	W
	- CDS	W
0/. distortion = 2.07%		
DATE	ZSENTE 63	
	della pirtanean la prima della	
Gupervisor Qualicy assur		2
GEEIA.	MR felant	1-

# - DOSPAL DESCRIPTIO COMPONATION

# DIG RALLY II PROJECT

DATA SHEET

# Susting Task

W.	mainideld	DISTORTION	Channel	Oroup (
	FUNDAMENTA	al Frequency		
			400 000	manufacture of the Commence of the
			LPPD 699	manufacture Commence
	MARKONICS		monarch of observe to 3	non-necessarily construction of the second
			12,00 cps	The state of the s
			1500000	and the second s
				and the second s
			Leacers	Marine Marine State of the Stat
			2000 000	anniagrantemasement and anniagranse
			2400000	nacennestassamente esta mana de la se
			322203	secondarionamento Transmisso de 19
		•	32060	acceptante in the contract of
			- CD	
0	distortion	~= 3.73%		

DATE

I.S. 1863

TERM

SUPERVISOR

QUALLY ASSURANCE BEBOSO

GEEIA. SPRECO

# BIG RALLY II PROJECT

DATA SHEET

2.4	HARMONIC DISTORTE	OM	Channel 2	Group / D
	PUNDAMENTAL BRE	QUENCY		
		¢o-	400 cos	1350
		•	1000 ops	13000
	HARMONICS		1200 opa	LO MV
		N = 24	1400 025	
			1600 GPS	
		400	1800 CPC	21/200
Larra v a significant		•	2000 000	animal an
	r g		2400 000	and the second s
		•	3000 000	waterson warming and The
		•	CPS	waterprotestation and a second of the second
		*	000	NOTE AND THE PROPERTY OF THE P
		40	CPC	3.07
% disto	ition = 3,18%			
	DATE	ZSERT	63	
	TESTER		Makaderiah seli sela selap	
	SUPERVICOR	130	? 12.	
	QUALITY ASSI		. / /	
	67 4 6	7.11. XY	Plant-	

## PEDERAL SECURIC CORPORATION

## BIO RAME II PROJUCE

DATA SHEET

STOTAL TEST

	7	
le manonic menoneton	Channel 3	Groupen
Totalical Triculation		
	YOU COS	incommentation to the second
	1000 093	1300NV
PAREONICS .	service to Commission	and the second s
	1200 ces	appropriate and a second of a matter
	1400 003	and a second second second second
	1600 003	40 30
	ifee con	9 my
	2000 000	F 187
		LICT EST
	3000 cps	7 100
	CPS CPS	Standards - No. or or other management of the standards of the standard of the standards of
	CP 3	327
% distortion = 3,22%		
Table 18	The Board of the B	
and the second of the second of		
SUPERITECOR	SS-LA-LA-MUNIS 47-MUSS.	
quality assumed B.E.	Ber	
GEEIA. SYRY	Colont	
	- Francisco	

## BIG RALLY II PROJECT

DATA SHEET

1. HARMONIC DISTORTION	Channel 4	Group 1.0
FUNDAMENTAL BREQUENCY		
	the cas	1550 W
	/000 cps	135030
HARMONICS	600 eps	25 M
•	1200 CPS	7 MV
	1400 SPS	Value of the second sec
•	1600 CPS	36 M
***	1500 CPS	36 M
	2000 cps	5 INV
	2400 ces	15 IN
	3000000	15 NV
	CPS	P.C.
		PA
of distortion = 2.9%		
DATE 75015	63	
TESTER	Minthus Programming (	
SUPERVISOR	Herden codes and we have	
QUALITY ASSURANCE 13.5	13000	
D. E. E. G. a. St	Rf. Clark	

## FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

DATA SHEET

1.	HARMONIC DISTORTION	Channel 5 Group / D	-
	FUNDAMENTAL FREQUENCY	*	
		<u> </u>	VM
		1000, cps	_MV
	HARMONICS		
		1200 cps (18-25)	VM
		1200 CPS (18-23)	MV_MV
		16/00 CPS 14	VM
		<u> 1600</u> CPS <u>51</u>	VM_
		1800 CPS 2	_MV
		2000 CPS	_MV
1/cd	intertion 4.2%	2400 CPS 3	VM_
, -		<u> 3000</u> CPS <u>/3</u>	2_MV
		3200 CPS :	5 MV
		CPS	W
		for I am	
	DATE 7-Sept	8.63	
	TESTER	transference of the control of the c	
	SUPERVISOR	<del>0</del>	
	QUALITY ASSURANCE 13.9	13000	
	GEEIA. Of	R felant	

## BIG RALLY II PROJECT

## DATA SHEET

1. FIARMO	NIC DISTORTION		Channel 6	Group 1.0
FUN	DAMENTAL FREQUE	ENCY		
			400 cp	s 1400 W
		_	1000	eps <u>/300</u> MV
HAR	MONICS	-	le tro	eps//_MV
			1200	PS/_MV
		guiden.	1400	PS // MV
		4014	11000	PS <u>40 M</u> V
		-	1800	OPSNV
		-	2000	CPS
1/ distortion	20287		24000	70 MV
lo augustos viros	2.02/0	••••	3000	CPS
		-	(	CPS MV
		•••	(	CPSMV
				* 4 ** . ** * .
	DATE	7 Sept	63	
	TESTER	-		
	SUPERVISOR			
	QUALITY ASSURAN	TCE B. E.	Thosa,	
	GEETA.	21/1	folant	

## BIG RALLY II PROJECT

### DATA SHEET

### SYSTEM TEST

1. HARMONIC DISTORTION	Channel 7	Group LO
FUNDAMENTAL FREQUENCY	t/or cps	MV
	<i>j 000</i> cps	
HARMONICS	<u> </u>	
	12,00 cps	16 MV
· ·	1400 cps	66666 7 MV
	1600 cps	35,_MV
	1200 Cps	53 MV
9	2.000 cps	MV
	2400 cps	35 MV
% distortion 3.7%	3000 cps	
-	cps	VM
,	cps	MV
		•
DATE ZSpt.	63	
TESTER	and the state of t	
SUPERVISOR		

QUALITY ASSURANCE B. E. Beggs
(; EE 1A. SYR / Churt

## BIG RALLY II PROJECT

## DATA SHEET

1. HARMONIC DISTORTION	Channel /	Group / r.
fundamental frequency		1200 MV
	<u> </u>	1300 M
HARMONICS	<u>600</u> cps	10 MV
	1200 eps	O MV
	14/00 cps	66565 <u>7</u> mv
	1600 cps	3.2 MV
	1800 Cps	.5.1- MV
	2000 cps	É MV
	2400 cps	33_w
	3000 eps	
Galistertion 4.35%	cps	MA
/60	eps	MV
	,	
DATE Z Se	12t, 63	
TESTER		
SUPERVISOR		
quality assurance 🔏	E. Berry	
GEEINAS	By Clant	

## BIG RALLY IN PROJECT

## DATA SHEET

FUNDAMENTAL FREQUENCY	Channel 9	1350 W
MARMONICS	della	1335 M
***	200 commissioners	
		W. Commerce and Co
	1200 cps	13 11
•		5000/2 am
	CPS	
	1800 000	manuscriptor services companies 227
		36 M
- Control of the Cont	2010 ops	E IIV
	2416 cps	
**************************************	30CD CDS	NV STATE
07 11 -		VIV.
Modification. 3.98%	- ODS	25 MV
-	CDS .	VIV
	6.	AT, the contratement of a second second second
DATE		
TESTER Z SONT	63	
	Minhipping	
SUPERVISOR		
QUALITY ASSURANCE B. E. T.		
GEEIA SURD	P	
	ne of	

### BIG MALLY II PROJECT

#### DATA SHEET

#### SESTEM THEF

2. MAINONIC DISTORTION	Channel 10 Group 1.D.
Fugidamental presquency	400000 140000
	Lece ops 1125 M
Marmonecs	600 ops 22 on 24
	Ecops 25 NV 30
	1200 003 100 40 18 42
	1-160 003 - 11 15
	1660 000 16 000 bb
	121 Warman Library
	and the Company of th
155 7	3200 003 L 17 2.0
% distortion. 7.7% 6.94%.	2400 cos
10 6.94%	more and the contraction of the second of th
	3000 eps 42 MV 23
	3780 EPS . 17 18V 15

DATE

7 SEPT. 63

THEFTER

SUPERVISOR

GEETA, LARGONISTA

NOTEL 2 TISTS WERE DON ON This chansely
Both Times it Excepts specifications
1. E. MAX 5%

### HARMONIC DISTORTION

## ID/GPA Channel #10 Low

Output level of both Oscillators

		1000N	REF 1125	Volts
		400N	REF 1200	Volts
Level of	Harmonics		is a	
1 Frequ	ency 1200	Milli Vol	lts <u>14</u>	
	1400		8	et.
	1600		40	
	1800		_21	
	2000		_17	
	2400		25	
	3000		10	

& Distortion 1.005 7 how 5%

## FEDERAL FLECTRIC CORPORATION DIO PALLY II PROJECT DATA SHEET

## SYSTEM TEUR

le :	SAPROTE DISCUSSES	Chennal //	Grossp. L. C.
	FUNDAMENTAL PROQUENCY	at CO market and a contract of the contract of	weeks and the second se
		ментина принципальный СРБ	W
	Markion tog	which is manufactured to the same of the s	W. Compression and a superior and a
		· white the company of the company o	W.
		- CDS	SCOOL W
		COS	one-almost applied provinces
		S) a	anna ann ann ann ann ann ann ann ann an
		cos	MA
		mailmains market working (2) 3	The second second second second
		BC9_numbers	
		673	WV
		ops	W

104.77

TESTER

SUPERVISOR

QUALITY ASSTRATES

Note; Test not performed this chanted stone to a tool filler unit at ID 1-40

### BIG RALLY II PROJECT

DATA SHEET

#### SYSTEM TEST

1. HARMONIC DISTORTION	Channel / 2/	Group 1.0
FUNDAMENTAL FREQUENCY	1/00 cps	1400 M
_	1000 cps	1200 MV
. Harmonics	boo cps	18 M
	600 cps	37 M
	1200 cps	75 MV
	1400 cps	36 MV
	//- pp cps	105 MV
	1800 cps	
_	2.coc cps	22 MV
	2700 cps	16 MV
	2480 cps	100 MV
87 1-1-	<u> </u>	13 MV
% distortion 10+%	3000	34

DATE 7 SEPT. 63 TESTER

SUPERVISOR

QUALITY ASSURANCE B. P. BODD.

6 EE IA. SIRCHUST

NOTTI This ChANNEL EXCREPED TEST

SPECIFICATIONS

## HARMONIC DISTORTION

## ID/GPA Channel #12 Low

## Output level of both Oscillators

			1000	on ref	1200
			400	n ref	1300
Level of Harm	nonics				
1 Frequency	600		Milli Volts	10	A.C.
	800			13	
	1200			14	
	1400			14.	
	1600			48	
	1800			20	
	2000			14	
	24.00			28	
	3000	10		10	
No.					
% Distortion	Jess These	5%			
(3)	Cover R	Polant.		ì	

Volts

Volts

#### FEDERAL ELECTRIC CORPORATION BIG RALLY 11 PROJECT DATA SHEET SYSTEM TEST DATA

IDLE CHANNEL NOISE ID/GPA

	FIA, DBM uncorrected	,		HIG	H GR	OUP	6	7	B.	9	10	11	12
	ID terminate GPA measure	-53	.53	54	54	53		54.5		53		53.5	545
	GPA terminate ID measure	475	46	49,5	49.5	50	50	49.5	50	51	51	47.5	47.5
	ID measure looped at GPA	45	47	47.5	46	46.5	485	47.5	47.5	49	49	455	45
-	FIA weighted, DBAO ID terminated GPA measure	35	25	24	24	25	25	235	24	25	22	225	<i>735</i>
	GPA terminate	305	30	28.5	2 <u>8.5</u>	28	28	285	28	27	27	30.5	30.5
	ID measure looped at GPA	33	31	30.5	30	3/5	29.5	305	30.5	29	29	326	33

#### LOW GROUP

FIA	, DBM u	ncorr	ected										
TD	termina	† A		1	2	3	4	5	6	7	8	9	1
	measur	_	1	48.5	48.5	47.5	47.5			44	46.5	455	4

GPA terminate-ID measure ID measure looped at GPA FIA weighted DBAO

ID terminate GPA measure

GPA terminate ID measure

ID measure looped at GPA

	1	2	3	4	5	6	7	8	9	10	11	12
•	48.5	48.5	47.5	47.5			44	46.5	455	455		
2		52					7.5	46.5			1.D.	
	48			455	01/	7.6	425				AT	1.6.
					1. AT	11 A7	143				11/68	BT
	35	26	25	25.5	4	-8	32	31.5	28.5	27	7	-3
	295	29.5	305	30.5	181	1/6	34	315	325	<i>32.5</i>	1330	VER
	30	31	33	32.5			35.5	345	34	345		Ì

TEST Equipment:
GPA, Daven 12B +7 DBMO FIA weighted
ID " " " " " "

25 0 pelont 13430101-43

## FEDERAL ELECTRIC CORPORATION BIG RALLY 11 PROJECT DATA SHEET

## SYSTEM TEST DATA IDLE CHANNEL NOISE

	10/4		
FIA, DBM uncorrected	LOW GROUP CHANNEL 7		HIGH GROUP CHANNEL 9
ID terminate GEL measure	- 56		<u>57.5</u>
GEL terminate ID measure	- 4/6_		- 4/8.5
ID measure looped at GEL	- 42		- 43.5
ID looped measure at GEL FIA weighted, DBOA	<u>- 5/</u>		<u> 56.</u>
. ID terminate GEL measure	- 33.0		- 3/.5
GEL measure ID looped	- 38.0		<u>- 33.0</u>
ID measure looped at GEL	-36.0		- 34.5
GEL terminate ID measure	32.0		- 29.5
*Test equipment ID/GEL	Daven 12 B		
NOTE: Readings taken a	t 4W +7.0 DE	BM point at ID	
Ex. reading -46.0 Correct factor + 7.0 -53.0	DBM		
DBAO conversion 85 D Corrected reading 32.0			
NOTE: Readings taken	at 4W -4.0 I	DBM point at GEL	
Correct factor - 4.	O DBM O DBM O DBM	DATE / 7 Sep7	/- 3
DBAO conversion 85	DBAO DBAO	SUPERVISOR	m 12 6 42.
		QUALITY ASSURANCE GEETA	Lehit

# FEDERAL ELECTRIC CORPORATION BIG RALLY LL PROJECT DATA SHEET SYSTEM TEST DATA TALK THROUGH TEST

Talk t	through ID/GEL:	
	Channel # 7 Lo Group	GOOD
	Channel # 9 Hi Group	GOOD
Talk 1	through ID/GPA:	
	HIGH GROUP	LOW GROUP
	Channel # 1 Food	Channel #1 Good.
	Channel # 2 Good	Channel #2 Good
	Channel #3 <u>Good</u>	Channel #3 Good
	Channel #4 Good	Channel #4 Good
	Channel #5 Good	Channel #5 Good
	Channel #6 Coccl	Channel #6 Good
	Channel #7 <u>Good</u>	Channel #7 <u>Good</u>
	Channel #8 <u>Good</u>	Channel #8 <u>Good</u>
	Channel #9 Good	Channel #9 Good
•	Channel #10 Good	Channel #10 Good
	Channel #11 <u>Good</u>	Channel #11 BAD FILTER ED
	Channel #12 600d	Channel #12 Good
REMARI	S: CHANNELIT LO GROUP has bad Filter	3

DATE & SEPT. 1.3
TESTER
SUPERVISOR
BURLITY ASSURANCE B. F. JBGOD
GEELA Selant
1-45

#### CHART RECORDINGS

#### 1. LOOPED CHANNEL NOISE:

Using 3A NMS, and Daven 12B as measuring device
Writing speed 3"/sec.
Chart speed 100 div/hr.
Channel #1 high group
Total recorded time - 168 hrs.
1st 6 minutes of each hour the loop shall be broken and the channel terminated in 600A at GPA providing 6 minutes of one-way recordings.

#### 2. LOOPED TEST TONE:

Writing speed 3"/sec.
Chart speed 100 div/sec. hr
Channel 3 high group for 72 hours balance of test
on channel 4 low group.
Total recorded time - 182 hrs.

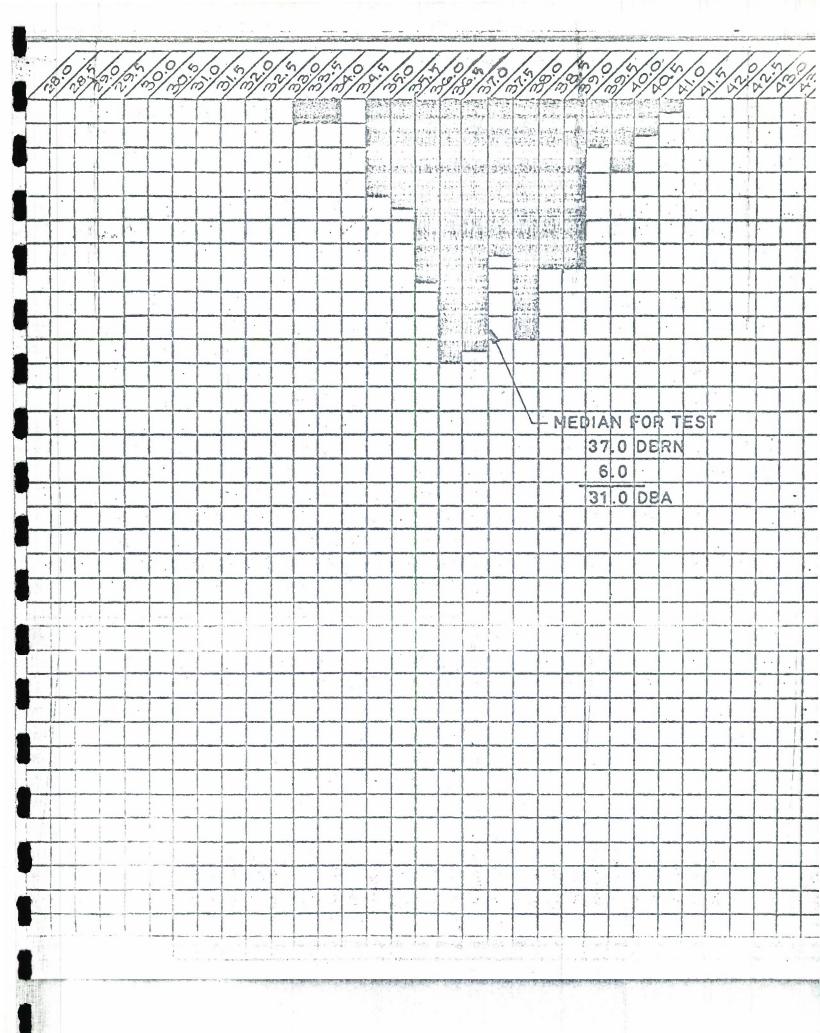
#### 3. ONE WAY CHANNEL NOISE GPA:

Using Daven 12B as measuring device
Writing speed 10"/sec.
Chart speed 100 div/hr.
Channel #7 at ID terminated in 600 at
GPA (Low group)
Total recorded time - 182 hours.

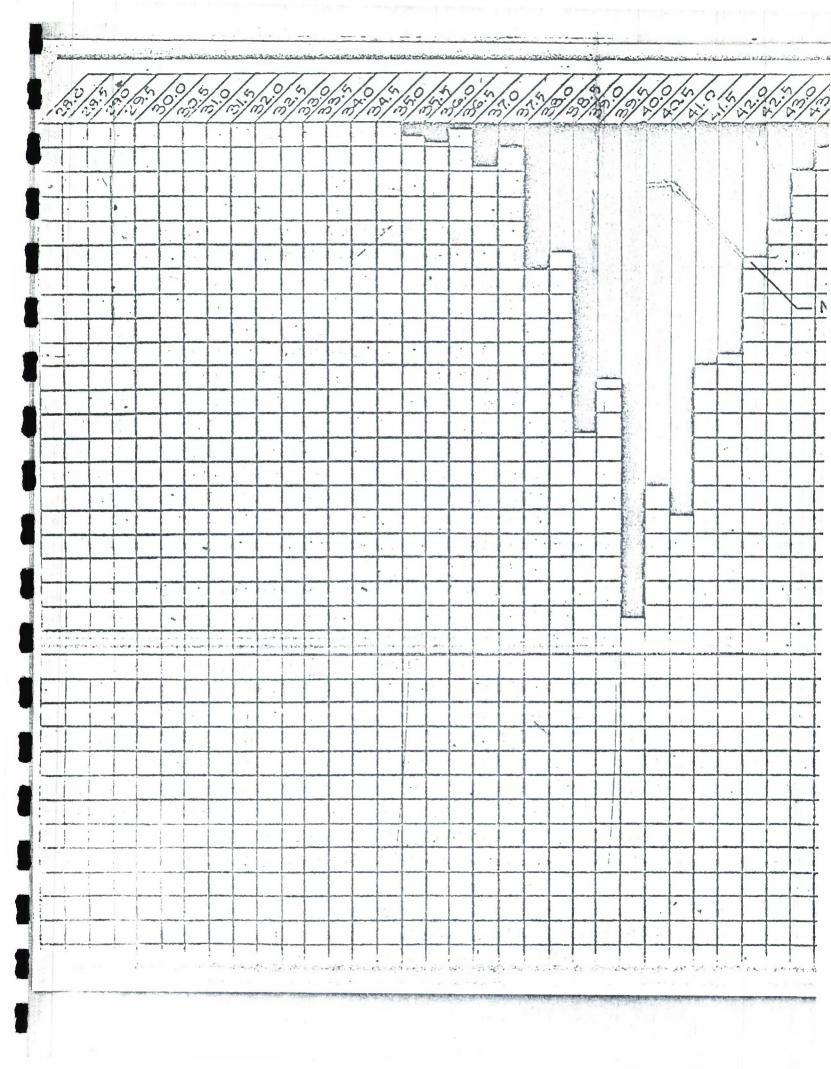
Above are the recording tests and criteria.

CERALD R. PELANT Hq Eur GEEIA Region

Atchs



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V	70	/	1	1	1/0	1			7		2/0	<b>?</b> }\	V	1/0	5/5	14	7
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		-				1	1	5					-	2	MEDIAN OF THIS
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and the party of the transport of the state of the state

Araba jo joh

## NET LOSS VARIATION

17 September 1963

					v.3 //	
HI Group - C	hannel 3					
Variation i	n db	0	<u>+</u> 0.5	±1.0	± 1.5	± 2.0
Number of s	amples					
Run #1		27	60	46	15	
Run #2		45	55	57	9	
Run #3		22	30	31	14	6
Run #4		28	41	46	17	12
Total		122	186	180	55	20
	% time '% time '% time '%	$\frac{4}{4} + 0.5 d$ $\frac{4}{4} + 1.5 d$	b variati b variati b variati	- 21.3% on - 55.3% on - 87.3% on - 97 % on - 100 %		
Low Group -	Channel	4				
Variation i	n db	0	± 0.5	± 1.0	± 1.5	<u>+</u> 2.0

Low Group - Channel	4				
Variation in db	0	± 0.5	± 1.0	± 1.5	+ 2.0
Number of samples					
Ran #5	17	41	45	46	. 22
Run #6	8	28	66	0	2
Run #7	21	38	37	29	19
Run #8	18	55	61	4	0
Totel	64	162	209	79	43
% time 6	= 0 db 1	variation		1.5%	

%	time	6.	0 db	variatio	n -	11.5%
%	time	6 +	0.5 d	b variat	ion -	40.7%
00	time	4+	1.0 d	b variat	ion -	80 %
%	time	실 포	1.5 d	b variat	ion -	93 %
%	time	£ ±	2.0 d	b variat	ion -	100 %
		they were	the same of the			the state of the state of the state of

1-49

		STATIC	N I.D.
Transn	nission Path: From I.D.	Station to I.C.	Station
MC-50	Multiplex Rack No. 122.		
		EXPECTED Hi-GROUP	ACTUAL 10 Garage
1.	MASTER OSCILLATOR LEVELS TP1	(1.0v±0.1v) /.1	
	TP3	(1.0v±0.1v) 4.8	MV N/A
2.	SLAVE OSCILLATOR SYNCHRONIZ	ATIONAND OUTPUT L	
	Scope Pattern TPI	(locked). (1.0v ±0.1v)	N/A Int
3.	HARMONIC GENERATOR LEVELS	(15v pp min) 26	v
4.	CHANNEL CARRIER SUPPLY		
_	Channel 1 64 kg Channel 2 68 kg Channel 3 72 kg Channel 4 76 kg Channel 5 80 kg Channel 6 84 kg Channel 7 88 kg Channel 7 88 kg Channel 8 92 kg Channel 9 96 kg Channel 10 100 kg Channel 11 104 kg Channel 12 108 kg	(1. lv min) (1. lv min) (2. lv min) (2. lv min) (3. lv min) (4. lv min) (4. lv min) (5. lv min) (6. lv min) (7. lv min)	
5.	CHANNEL CARRIER LEAK		
	Channel 1 64 kg Channel 2 68 kc Channel 3 72 kc Channel 4 76 kc Channel 5 80 kc Channel 6 84 kc Channel 7 88 kc Channel 7 88 kc Channel 8 92 kc Channel 9 96 kc Channel 10 100 kc Channel 11 104 kc Channel 12 108 kc	(.13 mv max) .07.5 (.13 mv max) .03. (.13 mv max) .07	5
	Sheet 1	or 4	2-1

		SIALION	1, 10.
Tran	smission Path: From Station 1.7.	to Station 1. C	
Multi	plex Rack No.	Hi Group	LO GROUP
		EXPECTED	ACTUAL
7.	GROUP CARRIER LEAK	(lrav max) N/A.	mv .9
8.	SIGNALLING SUPPLY LEVEL	(2v. ±0. 2v)	mv N/A.
9.	CHANNEL TRANSMIT LEVEL AT (Input to Channel Modulator -1000		
	Channel 1 63 kg Channel 2 67 kg Channel 3 71 kg Channel 4 75 kg Channel 5 79 kg Channel 5 83 kg Channel 6 87 kg Channel 6 91 kg Channel 7 95 kg Channel 10 99 kg Channel 11 103 kg Channel 11 107 kg	(7.8 mv ±0.8 mv) 7.8 (7.8 mv±0.8 mv) 7.8	mv 7.8
10.	SIGNALLING LEVEL (AT GROUP	INPUT) 3825 cps	
	Channel 1 60.175 kg Channel 2 64.175 kg Channel 3 68.175 kg Channel 4 72:175 kg Channel 5 76.175 kg Channel 6 80.175 kg Channel 84.175 kg Channel 84.175 kg Channel 92.175 kg Channel 10 96.175 kg Channel 11 100.175 kg Channel 12 104.175 kg	(.125 mv±0.02 mv) .113 (.125 mv±0.02 mv) .113 (.125 mv±0.02 mv) .110 (.125 mv±0.02 mv) .117 (.125 mv±0.02 mv) .117 (.125 mv±0.02 mv) .110 (.125 mv±0.02 mv) .110 (.125 mv±0.02 mv) .126 (.125 mv±0.02 mv) .136	mv .115 mv .118 mv .108 mv .132 mv .120 mv .120

STATION  $I.\mathcal{D}$ .

Transmission Path: From Station 1.D.	TO Station 1: C.
Multiplex Rock No. 1 & 2	
II. GROUP TRANSMIT LEVEL	EXPECTED HI GROUP ACTUAL LO GROU
MRC-85, MRC-80 & FRC-39A(V) Stations MW503A LOS Stations MRC-85 & FRC-39A(V) Modulator input Level MRC-80 Transmitter Input Level MW503A Transmitter Input Level	(13.7mv $\pm$ 0.7 mv) 13.5 mv 13.7 (4.9 mv $\pm$ 0.2mv) #1 27.4 N/A mv #1 27.1 (27.4mv $\pm$ 1.5 mv) #2 27.4 t2 27. (-10 dbm $\pm$ 0.5 dbm) N/A dbm N/A mv
GROUP RECEIVE LEVEL  GRP IN (TP7)  MRC-85, MRC-80 & FRC-39A(V)  MW-503A LOS (except GPA)  MW-503A LOS (GPA only)	(13.7mv ± 0.8 mv) 13 mv 14.2 (15.5 mv ± 0.9 mv) N/A.mv (7.7 mv ± 0.5 mv) N/A.mv
GRP OUT (TP4)  13. CHANNEL RECEIVE LEVELS	(18 mv + 1 mv) 18.8 mv 18.
VF REC Test Point  Channel 1 Channel 2 Channel 3 Channel 4 Channel 5 Channel 6 Channel 7 Channel 8 Channel 9 Channel 10 Channel 11 Channel 12	(-31 dbm + 1 dbm) - 31 dbm - 30.4 (-31 dbm + 1 dbm) - 31.3 dbm - 31.6 (-31 dbm + 1 dbm) - 31.7 dbm - 31.6 (-31 dbm + 1 dbm) - 31.7 dbm - 31.6 (-31 dbm + 1 dbm) - 31.2 dbm - 31.8 (-31 dbm + 1 dbm) - 31.2 dbm - 31.8 (-31 dbm + 1 dbm) - 31.2 dbm - 31.8 (-31 dbm + 1 dbm) - 31.2 dbm - 31.8 (-31 dbm + 1 dbm) - 31.2 dbm - 31.8 (-31 dbm + 1 dbm) - 31.2 dbm - 31.8 (-31 dbm + 1 dbm) - 31.2 dbm - 31.4 (-31 dbm + 1 dbm) - 31.2 dbm - 31.4 (-31 dbm + 1 dbm) - 31.2 dbm - 31.4 (-31 dbm + 1 dbm) - 31.2 dbm - 31.4 (-31 dbm + 1 dbm) - 31.2 dbm - 31.6

## FEDERAL ELECTRIC CORPORATION BIG RALLY IT PROJECT DATA SHEET

MC-50 MULTIPLEX TEST

BRII/41

Transmission Path: Figor Station 1.D.	t> Station_	1.C.	
Multiplex Rack No.			
	EXPECTED	AC	TUAL
13. CHANNEL RECEIVE LEVELS-conti	inued	Hi-Georp	Low GROUP
Channel VF Out			
Channel 1 Channel 2 Channel 3 Channel 4 Channel 5 Channel 6 Channel 7 Channel 8 Channel 9 Channel 10 Channel 11 Channel 12	(+7 dom ± 0.5 (+7 dom ± 0.5	(db)       +7         (db)	dbm +7
QU	TI SUPERV ALLIT ASSURA	VISOR O	NE 63. Nelson Gibboso G. Beso.

Sheet 4 of 4

B - 1			STATIO	N /C
Transmi	ission Path: From	10	Station to 10	_Station /
MC-50 N	Multiplex Rack No.	1		
Tall A				
			EXPECTED	ACTUAL
1. A	MASTER OSCILLATO	R LEVELS A	V/A ATIC	
	TPl		(1.0v±0.1v)	v
	TP3		(1.0v±0.1v)	v
2. S	LAVE OSCILLATOR	SYNCHRONIZ	ATIONAND OUTPUT LE	EVELS
	Scope Pattern		(locked)	Int
	TPi	4.	(1.0v ±0.1v)	
The part		1		
3. F	HARMONIC GENERA	FOR LEVELS	(15v pp min)	26 v
4.	CHANNEL CARRIER	SUPPLY		
	Channel 1	64 kc	(1.1v min)	1.2 v.
		68 kc	(L. ly min)	12 V
New York		72 kc	(1. lv min)	13 V
	Channel 4	76 kc	(1. ly min)	12/V
		80 kc	(1. ly min)	12- V
		84 kc	(l. lv min)	1.1 V
		88 kc	(I. ly min)	1.1 V
	· Channel 8,		(L. lv min)	13 v
		96 kc-	(1 ly min)	- Vannage
	Channel 10	100 kg	(i. ly min)	1.2 V
		104 kc	(2. ly min)	7.7 v
	Channel 12	108 kc	(L. lv min)	1.3 v
5. C	ROUP CARRIER SUI	PPLY	(2v±0, 2v)	2 v
6. C	CHANNEL CARRIER	LEAK		
	Channel   1	64 kc	(.13 mv max)	of my
	Channel 2	68 kc	(.13 mv max)	og mv
	Channel 3	72 kc	(.13 mv max)	ox mv
	Channel 4	76 kc	(.13 mv max)	./o mv
	Channel 5	80 kc	(. 13 mv max)	.// mv
	Channel 6	84 kc	(, 15 mv max)	.06 mv
	Channel:7	88 kc	(.13 mv max)	//_mv
	Channel 8	92 kc	(.13 mv max)	OR mv
74	Channel 9	96 kc	(.15 mv max)	:03 mv
		.00 kc	(.13 mv max)	12 mv
		04 kc	(.13 mv max)	.OC mv
	Channel 12 1	.08 kc	(.13 mv max)	-09 mv

			STATION	1/C
Transi	mission Path: From Station	16	to Station /	D
Multip	lex Rack No.	_	*	
		EX	PECTED	ACTUAL
7.	GROUP CARRIER LEAK	(11:	ov max)	mv
8.	SIGNALLING SUPPLY LE	EVEL (2v	.±0.2v) N/A ATIC	mv
9.	CHANNEL TRANSMIT LE			
	Channel 1 63 Channel 2 67 Channel 3 71 Channel 4 75 Channel 5 79 Channel 6 83 Channel 7 87 Channel 8 91 Channel 9 95 Channel 10 99 Channel 11 103 Channel 12 107	kc (7. kc)))))))))))))))))))))))))))))))	8 mv ±0.8 mv) 8 mv±0.8 mv)	7.8 mv 7.8 mv
10.	Channel 2 64. Channel 3 68. Channel 4 72. Channel 5 76. Channel 6 80. Channel 7 84. Channel 8 88. Channel 9 92. Channel 10 96. Channel 11 100.	175 kc (.1.	25 mv±0.02 mv)	mv m

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1:

STATION /C

Transm	nission Path: From Station 10-10-	TO Station 10 - 10	
Multip	olex Rack No.		
и.	GROUP TRANSMIT LEVEL	EXPECTED.	ACTUAL
h	MRC-85, MRC-80 & FRC-39A(V) Stations MW503A LOS Stations MRC-85 & FRC-39A(V) Modulator Input Level MRC-80 Transmitter Input Level MW503A Transmitter Input Level	(13.7mv+0.7 mv) (4.9 mv ±0.2mv) (27.4mv+1.5 mv) (-10 dbm ±0.5 dbm) (7.7 mv ± 0.3 mv)	13.7 mv N/A- mv 20 DOM ED 75 OFFIS N/A- dbm N/A- mv
12.	GROUP RECEIVE LEVEL		Å.
13.	GRP IN (TP7)  MRC-85, MRC-80 & FRC-39A(V)  MW-503A LOS (except GPA)  MW-503A LOS (GPA only)  GRP OUT (TP4)  CHANNEL RECEIVE LEVELS	(13.7mv + 0.8 mv) (15.5 mv + 0.9 mv) (7.7 mv + 0.5 mv) (18 mv + 1 mv) 18 mm @ 50 ~ = 6 1	13.5 mv N/A mv N/A mv 60 mv wor @ 600 w
	VF REC Test Point		
	Channel 1 Channel 2 Channel 3 Channel 4 Channel 5 Channel 6 Channel 7 Channel 8 Channel 9 Channel 10 Channel 11 Channel 12	(-31 dbm + 1 db m) (-31 dbm + 1 dbm)	31 dbm

## FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET

BRII/41

STATION

MC-50 MULTIPLEX TEST

Transmission Path: From Station to Station Multiplex Rack No. EXPECTED ACTUAL 13. CHANNEL RECEIVE LEVELS-continued Channel VF Out - Channel 1  $(+7 \text{ dom} \pm 0.5 \text{ db})$ dbm dbm Channel 2  $(+7 \text{ dbm} \pm 0.5 \text{ db})$ Channel 3 dbm  $(+7 \text{ dbm} \pm 0.5 \text{ db})$  $(\pm 7 \text{ dom } \pm 0.5 \text{ db})$ dbm Channel 4 Channel 5  $(+7 \text{ dom} \pm 0.5 \text{ db})$ dbm  $(+7 \text{ dom} \pm 0.5 \text{ db})$ dbm ·Channel 6 Channel 7 dbm  $(+7 \text{ dom} \pm 0.5 \text{ db})$ dbm Channel 8  $(\div 7 \text{ dom} \pm 0.5 \text{ db})$ dbm  $(+7 \text{ dom} \pm 0.5 \text{ db})$ Channel 9 dbm . Channel 10  $(+7 \text{ dom} \pm 0.5 \text{ db})$  $(+7 \text{ dom } \pm 0.5 \text{ db})$ dom Channel 11 dom (+7) dbm = 0.5 dbChannel 12 DATE TESTER SUPERVISOR QUALITY ASSURANCE (

Sheet 4 of 4

2-8

	STAL	10N 10
Transmission Path: From IC	Station to GA	Station
MC-50 Multiplex Rack No. 2		
	EXPECTED	ACTUAL
1. MASTER OSCILLATOR LEVELS		
TPl	(].0v±0.1v)	27/4
TP3	$(1.0v\pm0.1v)$	N/A v
2. SLAVE OSCILLATOR SYNCHRONIZ	ZATIONAND OUTPUT	LEVELS
Scope Pattern	(locked)	N/A Int
TPi	$(1.0v \pm 0.1v)$	N/A v
3. HARMONIC GENERATOR LEVELS	(15v pp min)	N/A v
4. CHANNEL CARRIER SUPPLY		
Channel 1 64 kc	(1. lv min)	1.3 v.
Channel 2 68 kc	(L. lv min)	1 <u>.1</u> v
Channel 3 72 kc	(l. lv min)	1 <u>.15</u> v
Channel 4 76 kc	(l. lv min)	1.1v
Channel: 5 80 kc	(I. lv min)	10.3 v
Channel 6 84 kc	(l. lv min)	1 <u>.15</u> v
Channel 7 88 kc	(I.lv min)	1.1 v
Channel 8 92 kc	(l. lv min)	1.25 v
Channel 9 96 kc	_(!_lv min)	1.2
Channel 10 100 kg	(i.lv min)	1.3v
Channel 11 104 kc	( lv min)	1.2_v
Channel 12 108 kc	(L. lv min)	1.2v
5. GROUP CARRIER SUPPLY	(2v±0.2v)	_2_v
6. CHANNEL CARRIER LEAK		
Channel 1 64 kc	(.13 mv max)	12 mv
Channel 2 68 kc	(.13 mv max)	.03 mv
Channel 3 72 kc	(.13 mv max)	.11 mv
Channel 4 76 kc	(.13 mv max)	.07 mv
Channel 5 80 kc	(.13 mv max)	•11 mv
Channel 6 84 kc	(. 13 mv max)	.05 mv
Channel: 7 88 kc	(.13 mv max)	_04 mv
Channel 8 92 kc	(.13 mv max)	
Channel 9 96 kc	(. 13 mv max)	.09 mv
Channel 10 100 kc	(.13 mv max)	.09 mv
Channel 11 104 kc	(.13 mv max)	125mv
Channel 12 108 kc	(.13 mv max)	.05 mv

Sheet 1 of 4

			SIA	TION IC
Trans	mission Path: From St	ation IC	to Station_	GH
Multip	lex Rack No. 2	i		
			EXPECTED	ACTUAL
7.	GROUP CARRIER LE	AK	(lrav max)	•4 mv
8.	SIGNALLING SUPPLY	Y LEVEL	(2v. ±0. 2v)	N/A mv
9.	CHANNEL TRANSMI' (Input to Channel Mo			
	Channel 6 Channel 7 Channel 8 Channel 9 Channel 10 Channel 11	71 kc 75 kc 79 kc 83 kc 87 kc 91 kc 95 kc 99 kc 103 kc	(7.8 mv ±0.8 mv) (7.8 mv±0.8 mv)	7.8 mv
10.	Channel 1 Channel 2 Channel 3 Channel 4 Channel 5 Channel 6 Channel 7 Channel 7 Channel 9 Channel 10 Channel 11	60. 175 kc 64. 175 kc 68. 175 kc 72. 175 kc 76. 175 kc 80. 175 kc 84. 175 kc 92. 175 kc	(.125 mv±0.02 mv) (.125 mv±0.02 mv)	mv m

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1

STATION	tc.	
GA		

Trans	mission Path: From Station IC	TO Station	GA
Multi	plex Rack No. 2		16
		EXPECTED	ACTUAL
II.	GROUP TRANSMIT LEVEL	t la	
	MRC-85, MRC-80 & FRC-39A(V) Stations	Measured at GRP. (13.7mv+0.7 mv)	00T
	MW503A LOS Stations	(4.9  mv + 0.2 mv)	N/A_mv
	MRC-85 & FRC-39A(V)	(27.4niv+1.5 mv)	N/A mv
	Modulator Input Level MRC-80 Transmitter Input Level	(-10 dbm +0.5 dbm)	N/à dbm
	MW503A Transmitter Input Level	(7.7  mv + 0.3  mv)	N/A dbm
		<u> </u>	
12.	GROUP RECEIVE LEVEL		
	GRP IN (TP7)	From EXC. # 2	
	MRC-85, MRC-80 & FRC-39A(V)	(13.7mv + 0.8 mv)	13.7 mv
	MW-503A LOS (except GPA)	(15.5  mv + 0.9  mv)	N/A mv
	MW-503A LOS (GPA only)	$(7.7 \text{ mV} \pm 0.5 \text{ mV})$	N/A mv
	GRP OUT (TP4)	(18 mv + 1 mv)	60 mv
i3.	CHANNEL RECEIVE LEVELS	60 mv @ 600 <u>0</u> = 18	mvat502
	VF REC Test Point		
	Channel 1	(-31 dbm + 1 db m)	ddbm
	Channel 2	$(-31 \text{ dbm} \pm 1 \text{ dbm})$	-31 dbm
	Channel 3	(-31  dbm + 1  dbm)	-31 dbm
	Channel 4	$(-31 \text{ dbm} \pm 1 \text{ dbm})$	- <u>31</u> dbm'
,	Channel 5	(-31 cbm + 1 dbm)	_31 dbm
	Channel 6 Channel 7	(-31 dbm + 1 dbm) (-31 dbm + 1 dbm)	-31 dbm
	Channel 8	(-31 cbm + 1 dbm)	-31 dbm -31 dbm -31 dbm
	Channel 9	(-31 cbm + 1 dbm)	#31 dbm
	Channel 10	(-31  cbm + 1  dbm)	-31 dbm
	Channel 11	(-31 dbm + 1 dbm)	-31 dbm -31 dbm -31 dbm
	Channel 12	(-31 dbm + 1 dbm)	-31 dbm

## FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

DATA SHEET MC-50 MULTIPLEX TEST

BRII/41

STATION

GH Transmission Path: From Station IC to Station Multiplex Rack No. EXPECTED ACTUAL CHANNEL RECEIVE LEVELS-continued Channel VF Out - Channel 1  $(+7 \text{ dom} \pm 0.5 \text{ db})$ dbm Channel 2  $(+7 \text{ dbm} \pm 0.5 \text{ db})$ dbm Channel 3  $(+7 \text{ dbm} \pm 0.5 \text{ db})$ dbm Channel 4  $(+7 \text{ dbm} \pm 0.5 \text{ db})$ dbm Channel . 5  $(+7 \text{ dbm} \pm 0.5 \text{ db})$ dbm Channel 6  $(+7 \text{ dom} \pm 0.5 \text{ db})$ dbm Channel 7  $(+7 \text{ dom} \pm 0.5 \text{ db})$ dbm Channel 8  $(+7 \text{ dom } \pm 0.5 \text{ db})$ dbm Channel 9  $(+7 \text{ dom} \pm 0.5 \text{ db})$ dbm Channel 10  $(+7 \text{ dom} \pm 0.5 \text{ db})$ dbm Channel 11  $(+7 \text{ dom } \pm 0.5 \text{ db})$ dbm Channel 12  $(+7 \text{ dbm} \pm 0.5 \text{ db})$ dbm

TESTER SUPERVISOR, 7

DATE 75

QUALITY ASSURANCE William

GEETA Robert a Legler

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## FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET MC-50 MULTIPLEX TEST

	ATATION GP	A
Transmission Path: From GPA	Station to GA Station	
MC-50 Multiplex Rack No. 3 & 4	· · · · · · · · · · · · · · · · · · ·	•
· ·	EXPECTED ACTU	AL
1. MASTER OSCILLATOR LEVELS		
TP1 TP3	(1.0v±0.1v) N/A (1.0v±0.1v) N/A	v v
2. SLAVE OSCILLATOR SYNCHRON	NIZATIONAND OUTPUT LEVELS	
Scope Pattern TPI	(locked) (1.0v ±0.1v) 1.05	Int v
3. HARMONIC GENERATOR LEVEL	S (15v pp min)	/
4. CHANNEL CARRIER SUPPLY		
Channel 1 64 kc 108 Channel 2 68 kc 104 Channel 3 72 kc 100 Channel 4 76 kc 96 Channel 5 80 kc 92 Channel 6 84 kc 88 Channel 7 88 kc 84 Channel 8 92 kc 80 Channel 9 96 kc 76 Channel 10 100 kc 72 Channel 11 104 kc 68 Channel 12 108 kc 64	(2. lv min)	v v v v v
5. GROUP CARRIER SUPPLY	(2v±0.2v) 2.15°	v
6. CHANNEL CARRIER LEAK	RACK #4	RACK
Channel 1 64 kc 108 Channel 2 68 kc 104 Channel 3 72 kc 100 Channel 4 76 kc 96 Channel 5 80 kc 92 Channel 6 84 kc 88 Channel 7 88 kc 84 Channel 8 92 kc 80 Channel 9 96 kc 76 Channel 10 100 kc 72 Channel 11 104 kc 68	(.13 mv max) .13 m (.13 mv max) .09 m (.13 mv max) .085 m (.13 mv max) .13 m (.13 mv max) .13 m	mv .11 mv .09 mv .05 mv .03 mv .11 nv .11 mv .07 mv .15
	(.13 mv max) (.13 mv max)	89 I

Sheet 1 of 4

		STAT	TION GPA
Trans	smission Path: From Station	GPA to Station	GA
Multi	plex Rack No. 3 & 4		
		EXPECTED	ACTUAL
7.	GROUP CARRIER LEAK	(lrav max)	64_mv
8.	SIGNALLING SUPPLY LEVEL	(2v. ±0. 2v)	2_mv
9.	CHANNEL TRANSMIT LEVEL A (Input to Channel Modulator -100		Low Grp H.Grp Rack 4 Rack 3
	Channel 5 79 kc 92 Channel 6 83 kc 88 Channel 7 87 kc 84 Channel 8 91 kc 80 Channel 9 95 kc 76	(7.8 mv±0.8 mv) (7.8 mv±0.8mv) (7.8 mv±0.8mv) (7.8 mv±0.8mv) (7.8 mv±0.8mv) (7.8 mv±0.8mv) (7.8 mv±0.8mv) (7.8 mv±0.8mv) (7.8 mv±0.8mv) (7.8 mv±0.8mv)	7.8 mv 7.8
10.	SIGNALLING LEVEL (AT GROUP	PINPUT) 3825 cps	
	Channel 1 104-60. 175 kc Channel 2 100-64. 175 kc Channel 3 96-68. 175 kc Channel 4 92-72. 175 kc Channel 5 88-74. 175 kc Channel 6 84-80. 175 kc Channel 7 80-84. 175 kc Channel 8 76-88. 175 kc Channel 9 72-92. 175 kc Channel 10 68-96. 175 kc Channel 11 64-00. 175 kc Channel 12 60-04. 175 kc	(.125 mv±0.02 mv) (.125 mv±0.02 mv) (.125 mv±0.02 mv) (.125 mv±0.02 mv)	.125mv .125 .125mv .125
			원인과 그는 그리아 경기 때문에 다시 바다

Sheet2 of '4

STATION Transmission Path: From Station GPA TO Station GA Multiplex Rack No. 3 # 4 EXPECTED. ACTUAL 11. GROUP TRANSMIT LEVEL Rack #4 Rack 3 Low Grp H. Gp MRC-85, MRC-80 & FRC-39A(V) (13.7 mv + 0.7 mv)N/A mv M/A Stations 4.9 MW503A LOS Stations  $(4.9 \text{ mv} \pm 0.2 \text{mv})$ MRC-85 & FRC-39A(V) (27.4mv+1.5 mv) N/A mv N/A Modulator Input Level  $(-10 \text{ dbm } \pm 0.5 \text{ dbm})$  $(7.7 \text{ mv} \pm 0.3 \text{ mv})$ (-10 dbm + 0.5 dbm)M/A dbm MRC-80 Transmitter Input Level N/I 7.7 MW503A Transmitter Input Level  $7.9 \, \text{mv}$ GROUP RECEIVE LEVEL GRP IN (TP7) MRC-85, MRC-80 & FRC-39A(V) (13.7 mv + 0.8 mv)N/A mv N/A MW-503A LOS (except GPA) (15.5 mv + 0.9 mv)N/A mv N/A MW-503A LOS (GPA only) (7.7-mv+-0.5-mv) 13.7 mv 14.1 mv 13.7 (18 mv + 1 mv)GRP OUT (TP4) 60mv(600)60 60 CHANNEL RECEIVE LEVELS VF REC Test Point (-31 dbm + 1 db m) Channel 1 \_31 dbm -31 (-31 dbm + 1 dbm)Channel 2 -31 dbm -31 -31 dbm Channel 3 (-31 dbm + 1 dbm)-31 (-31 dbm + 1 dbm)Channel 4 -31 dbm' -31 Channel 5 (-31 cbm + 1 dbm)-31 dbm -31 Channel 6 (-31 dbm + 1 dbm)-31 dbm -31 -31 dbm Channel 7 (-31 cbm + 1 dbm)-31 -31 dbm Channel 8 (-31 cbm + 1 dbm)-31 (-31 cbm + 1 dbm) Channel 9 -31 dbm -31 Channel 10 (-31 dbm + 1 dbm)-31 dbm -31 Channel 11 (-31 dbm # 1 dbm) -31 dbm -31 Channel 12 (-31 dbm + 1 dbm)-31 dbm -31

### FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

DATA SHEET MC-50 MULTIPLEX TEST

BRII/41

STATION GPA

Transmission Path: From Station	G-PA	to Station_	GA			
Multiplex Rack No. 3 #4						
		EXPECTED		ACTU	AL	
3. CHANNEL RECEIVE LEVE	LS-cont	inued	Low	Grm	H	Grp.
Channel VF Out			Rack			k #3
Channel 1 Channel 2 Channel 3 Channel 4 Channel 5 Channel 6 Channel 6 Channel 7 Channel 8 Channel 9 Channel 10 Channel 11 Channel 12		(+7 dom ± 0.5 db) (+7 dbm ± 0.5 db)		+7 d +7 d +7 d +7 d +7 d +7 d +7 d +7 d	bm	+7 +7 +7 +7 +7 +7 +7 +7 +7 +7 +7 +7
		DA' TESTI SUPERVISO ALLIY ASSURANCE GEEIA 4 of 4	ER /// R 1.2	July Vingon	63 Dh	ay ~

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#### DATA SHEET

### IDLE NOISE MEASUREMENT MC-50 MULTIPLEX TEST

STATION: GPA

Transmission Path: From GPA Station to GA Station

#### HIGH GROUP

4.6		Odbmo	
Channel	Meter Reading	Reading	dba
1	-64.5	-71.5	13.5
2	-64.5	-71.5	13.5
3	-62	-69	16
4	-64	-71	14
5	<b>-61</b>	<b>-</b> 68	17
6	-64	-71	14
7	-64	-71	14
8	<b>-</b> 64	-71	14
9	-63.5	-70.5	14.5
10	-63.5	-70.5	14.5
11	-62	<b>-</b> 69	16
12	-63	-70	15

#### LOW GROUP

		Odbmo	diam'r
Channel	Meter Reading	Reading	dba
1	-58	-65	20
2	<b>-</b> 59	<b>-</b> 66	19
3	<b>-</b> 59	-66	19
4	-60	-67	18
5	-60	-67	18
6	-60	-67	18
7	-59.5	-66.5	18.5
8	<b>-59.5</b>	-66.5	18.5
9	-60	-67	18
10	-59.5	-66.5	18.5
11	<b>-59</b>	<b>-</b> 66	19
12	-58.5	-65.5	19.5

NOTE: The measurement was performed with multiplex looped back-to-back with radio isolation amplifier. equalizer network and baseband amplifiers in the loop-back circuit. The multiplex was aligned according to the T/A level values.

#### DATA SHEET

### IDLE NOISE MEASUREMENT MC-50 MULTIPLEX TEST

STATION: GPA

Transmission Path: From GPA Station to GA Station

#### Back-to-Back Connection

HIGH GROUP	May 2		25/4-3
Channel	Meter Reading	Odbmo Reading	dba
1 2	-65.5 -65.5	-72.5 -72.5	12.5
3	<b>-</b> 66	-73	12
4	<b>-</b> 66	-73	
5	-64.5	-71.5	13.5
6	-65.5	-72.5	
7	-65	-72	13
8	-65.5	-72.5	12.5
9	-63.5 -65	-70.5 -72	14.5
11 12	-65	-72	13
	-65	-72	13

LOW	GROUP			
	Channel	Meter Reading	Odbmo Reading	dba
	1 2	-57 -58	-64 -65	21 20
	3 4 5	-58 -58.5 -58.5	-65 -65.5 -65.5	20 19.5 19.5
	6 7 8	-59 -58 -59	-66 -65 -66	19 20 19
	9	-58.5 -58.5	-65.5 -65.5	19.5
	11	-58 -57.5	-65 -64.5	20 20.5

# DATA SHEET Addendum to BR II/41 Sheet 3 of 3 IDLE NOISE MEASUREMENT MC-50 MULTIPLEX TEST

STATION: GPA

Transmission Path: From GPA Station to GA Station

Back-to-Back Connection

#### HIGH GROUP

	Reading	Reading with I	nserted Tone
Channel	Without Tone	Upper Ch.	Lower Ch.
1 2 3 4 5 6 7 8 9 10 11	-65.5 -65.5 -65.5 -66 -66 -66 -65.5 -64.5 -65	-64.5 -65.5 -65.5 -60 -66 -66 -65.5 -64.5 -64.5	-64.5 -65.5 -65.5 -65.5 -66 -65.5 -64.5 -65
11 12			

#### LOW GROUP

	Reading	Reading with	Inserted Tone
Channel	Without Tone	Upper Ch.	Lower Ch.
l	-57.5	-55	
2	<b>-</b> 58	-55.5	-55.5
3	-58.5	-55.5	-55.5
4	-58.5	-57	-56
5	-59	-57	-56.5
6	-59.5	-57.5	-57
7	-58.5	-49	-56.5
8	-59	-57	-56.5
9	<b>-5</b> 9	-56.5	-56.5
10	-59.5	-56	-56
11	-58.5	-55.5	-55
12	-58		-56.5

					STATI	ON GPA	
Transı	mission	Path: From	GPA	Station to	GAB	Station	
MC-50	Multip	lex Rack No.	1		¥.		
1			Transplant of				
			• • • • • • • • • • • • • • • • • • • •	EXPECTED		ACTUAL	
1.	MAST	ER OSCILLA	TOR LEVEL				
			TOR ELVE				
		TP1 TP3		$(1.0v\pm0.1v)$ $(1.0v\pm0.1v)$		N/A v	
		113		(1.00±0.10)		N/A V	
2.	SLAVE	E OSCILLAT	OR SYNCHR	JO DINANOITAZINO	TPUT I	LEVELS	
				ation Test Data S	Sheets	*	٠.
		Scope Patte	rn	(locked)		人 Int	
		TPl	, i	$(1.0v \pm 0.1v)$		v	, in
3.	HARM	ONIC GENER	RATOR LEV	ELS (15v pp min)		v	
1	CHANT	NEL CARRIE	ע זממווס מי			*\	
4.				ion Tests perfor	med 4 J	July 1963	
	Ela Jago	.Channel 1		(1. lv min)	Table 1 to 10 to	* A v.	
		Channel 2		(L. lv min):		v	
		Channel 3	72 kc	(1. lv min)		v	
		Channel 4		(1. ly min)		v	
		Channel 5	80 kc	(l. lv min)		v	
		Channel . 6		(l. lv min)		v	
		Channel 7	88 kc	(L.lv min)		V	9 - 2
		Channel. 8.	92 kc	(1. lv min)		v 51	
		Channel 9	96 kc	(! lv min)		V	حووي
	1	Channel 10	100 kg	(i. ly min)	10	. v	
		Channel 11	104 kc	( lv min)		v	
		Channel 12	108 kc	(L. lv min)		v	
5.	GROU	P CARRIER S	SUPPLY	(2v±0.2v)		v	
6.	CHAN	NEL CARRIE	P I.FAK			T ¥	
0.	CIMIN	WELL CARRIE	IC DEAL				
		Channel 1	64 kc	(.13 mv max)		N/A mv	
		Channel 2	68 kc	(. 13 mv max)		N/A.mv	
		Channel 3	72 kc	(.13 my max)		N/A mv	
		Channel 4	76 kc	(.13 mv max)		N/A mv	
		Channel 5	92XX kc	(, 13 my max)		.05 mv	11
		Channel 6	88XX kc	(. 13 mv max)		.]] mv	
		Channel: 7	84XX kc	(.13 mv max)		.03 mv	
		Channel 8	80XX kc	(.13 mv max)		:11 mv	
		Channel 9	96 kc	(.13 mv max)		· N/A mv	
		Channel 10	100 kc	(.13 my max)		N/A mv	
		Channel 11	104 kc	(.13 mv max)		N/A mv	
		Channel 12	108 kc	(.13 mv max)	f :	N/A mv	
					W . W		

		ST	TION	GPA
Path: From Station_	GPA	to Station	GAB	
k No. 1	į			
	EXI	PECTED	AC	CTUAL
P CARRIER LEAK	(lra	v max)		N/Amv
LLING SUPPLY LEVI	EL (2v.	±0.2v)	_1	N/Amv
· ·				
Channel 2 67 kc Channel 3 71 kc Channel 4 75 kc Channel 5 91 229 kc Channel 6 87 258 kc Channel 7 83 257 kc Channel 8 79 251 kc Channel 9 95 kc Channel 10 99 kc Channel 11 103 kc Channel 12 107 kc	(7. 8 (7. 8 (7. 8 (7. 8 (7. 8 (7. 8 (7. 8	3 mv±0.8 mv) 3 mv±0.8mv)	7. 7	N/A mv
Channel 1 60.179 Channel 2 64.179 Channel 3 68.179 Channel 4 72.179 Channel 5 88XX 179 Channel 6 84XX 179 Channel 7 80XX 179 Channel 9 92.179 Channel 10 96.179 Channel 11 100.179	5 kc (.12 5 kc (.12	25 mv±0.02 mv	) _N	MA mv
	Channel 1 63 kc Channel 2 67 kc Channel 3 71 kc Channel 4 75 kc Channel 5 91 209 kc Channel 6 87 28 kc Channel 7 83 27 kc Channel 8 79 21 kc Channel 9 95 kc Channel 10 99 kc Channel 11 103 kc Channel 12 107 kc Channel 12 107 kc Channel 1 60.17 Channel 3 68.17 Channel 5 88 2 17 Channel 6 84 3 17 Channel 7 80 2 17 Channel 9 92.17 Channel 19 96.17 Channel 10 96.17	EXTENSE LEAK (170  LLING SUPPLY LEVEL (2v. NEL TRANSMIT LEVEL AT GROUT to Channel Modulator -1000 cps at Channel 2 67 kc (7.8 Channel 3 71 kc (7.8 Channel 4 75 kc (7.8 Channel 5 91 xx kc (7.8 Channel 6 87 xx kc (7.8 Channel 7 83 xx kc (7.8 Channel 7 83 xx kc (7.8 Channel 8 79 xx kc (7.8 Channel 9 95 kc (7.8 Channel 10 99 kc (7.8 Channel 10 99 kc (7.8 Channel 11 103 kc (7.8 Channel 12 107 kc (7.8 Channel 12 107 kc (7.8 Channel 13 68.175 kc (1.2 Channel 3 68.175 kc (1.2 Channel 5 88 xx 175 kc (1.2 Channel 6 84 xx 175 kc (1.2 Channel 7 80 xx 175 kc (1.2 Channel 8 76 xx 175 kc (1.2 Channel 9 92.175 kc (1.2 Channel 10 96.175 kc (1.2 Channel 10 96.175 kc (1.2 Channel 11 100.175 kc (1.2 Channel 12 104.175 kc (1.2 Channel	Path: From Station   GPA   to Station   k No.   1	EXPECTED ACCEPTED ACC

#### Sheet2 of '4

<sup>\*</sup> Has been changed to .4 mv. to conform with Motorola specifications. per Mr. H. Detweiler. FEC.

STATION GPA

Transm	ission Path: From Station GPA	TO Station GAR	
Multip	lex Rack No. 1		X.
11.	GROUP TRANSMIT LEVEL	EXPECTED.	ACTUAL
2	MRC-85, MRC-80 & FRC-39A(V) Stations MW503A LOS Stations MRC-85 & FRC-39A(V) Modulator Input Level MRC-80 Transmitter Input Level MW503A Transmitter Input Level	(13.7mv+0.7 mv) (4.9 mv +0.2mv) (27.4mv+1.5 mv) (-10 dbm +0.5 dbm) (7.7 mv + 0.3 mv)#A-7.7.	N/A mv  4.9 mv  N/A mv  N/A dbm  #B-7.7 mv
12.	GROUP RECEIVE LEVEL  GRP IN (TP7)  MRC-85, MRC-80 & FRC-39A(V)  MW-503A LOS (except GPA) from GA  MW-503A LOS (GPA only)		N/A mv 15.5 mv N/A mv
	GRP OUT (TP4)	(18 mv <u>+</u> 1 mv)	<u>la</u> mv
13.	CHANNEL RECEIVE LEVELS  VF REC Test Point  Channel 1 Channel 2 Channel 3 Channel 4 Channel 5 Channel 6 Channel 7 Channel 8 Channel 9 Channel 10 Channel 11 Channel 12	(-31 dbm + 1 db m) (-31 dbm + 1 dbm)	N/A dbm N/A dbm N/A dbm N/A dbm -31 dbm -31 dbm -31 dbm N/A dbm N/A dbm N/A dbm N/A dbm N/A dbm N/A dbm

#### FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET

BRII/41

MC-50 MULTIPLEX TEST

STATION GPA

Transmission Path: From Station	GPA	to Station	GAB	
Multiplex Rack No. 1				
		EXPECTED		ACTUAL
3. CHANNEL RECEIVE LEYEL	S-contin	ued		
Channel VF Out				
Channel ,l		(+7 dbm ± 0.5 db		N/A dbm
Channel 2		$(+7 \text{ dbm} \pm 0.5 \text{ db})$		N/A dbm
Channel 3		$(+7 \text{ dbm} \pm 0.5 \text{ db})$	)	N/A dbm
Channel 4	j. 6 1	$(+7 \text{ dbm} \pm 0.5 \text{ db})$	)	N/A dbm
Channel . 5		$(+7 \text{ dbm} \pm 0.5 \text{ db})$	)	47 dbm
. Channel 6		$(+7 \text{ dom} \pm 0.5 \text{ db})$	)	77 dbm
Channel 17		$(+7 \text{ dom} \pm 0.5 \text{ db})$	)	∠7 dbm
Channel 8		$(+7 \text{ dom} \pm 0.5 \text{ db})$	)	∠7 dbm
Channel 9		$(+7 \text{ dom} \pm 0.5 \text{ db})$	)	N/A dbm
Channel 10		$+7 \text{ dom} \pm 0.5 \text{ db}$	)	N/A dbm
Channel 11		$+7 \text{ dom } \pm 0.5 \text{ db}$	)	N/A dbm
Channel 12		$\pm 7$ dom $\pm 0.5$ db	)	N/A dbm
				C E 11 / 5
		D	ATE_	8 July 63
		TEST	TER //	2 Phone
		SUPERVIS	OR /	Winger
	OILV	LITY ASSURANC		1 Tarrellas
	QUA.	DLAI ABBURANC	E	The chof
		GEEIA	My	Uld
	Shoot A		-	- Will be got

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## FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET MC-50 MULTIPLEX TEST

				STATION	GAB	107.
Transmissi	on Path: From_	GAB	Station to	GPA	Station	
MC-50 Mult	iplex Rack No.	1				1,5 %
						A to
			EXPECTED		ACTUAL	
1. MAS	TER OSCILLAT	OR LEVELS				
	TPI		(1.0v±0.1v)		N/A V	
	TP3		$(1.0v\pm0.1v)$		N/A V	
2 67 43	VE OSCITIATO	D CVNICIID ONES	A TITONIA NID. OT	moun ra		
. 2. SLA	VE OSCILLATO	R SINCHRONIZ	LA I IONAND OC	TPUT LEV	ELS	
	Scope Patter	n	(locked)		Wag Int	
	TPi	i' i	$(1.0v \pm 0.1v)$		1.0 V	
TTAD	MONTE CENTED	A TOME TO TO	(25			
3. HAR	MONIC GENERA	ATOR LEVELS	(15v pp min)		16.0.V	
4. CHA	NNEL CARRIER	SUPPLY				
	Channel 1	. 64 kc	(l. lv min)		N/A_v.	
		68 kc	(). lv min):		N/A_V	
		72 kc	(!.lv min)		N/A_v	
		76 kc	(l.lv min)		NMAv	
		80 kc92 KC	(l.lv min)		1.36_V	
	Channel 6		(L. lv min)		1.35_V	
		88 kc84 KC	(i. lv min)		1.30_V	
	Channel 8		(l. lv min)		1.40 V	
	Channel 9	96 kg	_(!_lv_min)		N/A_V	mer -
	Channel 10 Channel 11	100 kd	(1. lv min) (2. lv min)		N/Av	
	Channel 12	104 kc 108 kc	(%. 1v min)		N/A v	
	Channel 12	100 KC	( IV min)		N/A	
5. GRO	UP CARRIER SU	JPPLY	(2v±0.2v)		N/A V	
6. CHA	NNEL CARRIER	LEAK				•
	Channel 1	64 kc	(.13 mv max)		N/A mv	
•	Channel 2	68 kc	(, 13 my max)		N/A mv	
	Channel 3	72 kc	(.13 my max)		N/A my	
	Channel 4	76 kc	(.13 my max)		N/A mv	
	Channel 5	20 kc 92 KC	(. 13 my max)		28 mv	
	Channel 6	84 kc 88 KC	(, 13 mv max)	***		1.0
	Channel: 7	88 kc 84 KC	(.13 my max)		25 mv	
	Channel 8	92 kc 80 KC	(.13 mv max)		: .21 mv	
	Channel 9	96 kc	(. 13 mv max)		N/A mv	
	Channel 10	100 kc	(.13 mv max)		N/A mv	
	Channel 11	104 kc	(.13 mv max)		N/A mv	
	Channel 12	108 kc ·	(.13 my max)		N/A mv	
		. 6				

Sheet 1 of 4

		STA	TION GAB
Tra	nsmission Path: From Station GAB	to Station	GPA
Mul	tiplex Rack No. 1		
		EXPECTED	ACTUAL
7.	GROUP CARRIER LEAK	(lrav max)	N/A_mv
8.	SIGNALLING SUPPLY LEVEL	(2v. ±0, 2v)	2.05 mv
9.	CHANNEL TRANSMIT LEVEL AT (Input to Channel Modulator -1000		
	Channel 6 83 kc88 KC	(7.8 mv ±0.8 mv) (7.8 mv±0.8 mv)	N/A mv N/A mv N/A mv N/A mv N/A mv 7.8 mv 7.8 mv 7.8 mv 7.8 mv N/A mv N/A mv N/A mv N/A mv N/A mv
10.	SIGNALLING LEVEL (AT GROUP	INPUT) 3825 cps	
	Channel 1 60.175 kc Channel 2 64.175 kc Channel 3 68.175 kc Channel 4 72.175 kc 88.175 KC Channel 5 76.175 kc 80.175 KC Channel 6 80.175 kc 80.175 KC Channel 7 84.175 kc Channel 8 92.175 kc Channel 9 92.175 kc Channel 10 96.175 kc Channel 11 100.175 kc Channel 12 104.175 kc	(.125 mv±0.02 mv) (.125 mv±0.02 mv)	N/A mv N/A mv N/A mv .13 mv .144 mv .145 mv .115 mv N/A mv N/A mv N/A mv

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STATION GAB .

Transc	mission Path: From Station GAB	TO Station GPA	
Multi	plex Rack No. 1		
· II.	GROUP TRANSMIT LEVEL	EXPECTED	ACTUAL
	MRC-85, MRC-80 & FRC-39A(V) Stations	(13.7mv+0.7 mv)	N/A mv
	MW503A LOS Stations MRC-85 & FRC-39A(V) Modulator Input Level	(4.9 mv ±0.2mv) (27.4mv±1.5 mv)	4.9 mv N/A mv
		$(-10 \text{ dbm } \pm 0.5 \text{ dbm})$ $(7.7 \text{ mv} \pm 0.3 \text{ mv})$	N/A dbm 7.7 mv
12.	GROUP RECEIVE LEVEL		
	GRP IN (TP7)  MRC-85, MRC-80 & FRC-39A(V)  MW-503A LOS (except GPA)  MW-503A LOS (GPA only)	(13.7mv ± 0.8 mv) (15.5 mv ± 0.9 mv) (7.7 mv ± 0.5 mv)	N/A mv 15.2 mv N/A mv
	GRP OUT (TP4)	(18 mv <u>+</u> 1 mv)	18.0 mv
i3.	CHANNEL RECEIVE LEVELS		
	VF REC Test Point		
	Channel 1 Channel 2 Channel 3 Channel 4 Channel 5 Channel 6 Channel 7 Channel 8 Channel 9 Channel 10 Channel 11 Channel 12	(-31 dbm + 1 dbm)	N/A dbm  N/A dbm  N/A dbm  N/A dbm  N/A dbm  -31.0 dbm  -31.0 dbm  -31.0 dbm  N/A dbm  N/A dbm  N/A dbm  N/A dbm  N/A dbm

### FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET

BRII/41

MC-50 MULTIPLEX TEST

STATION GAB

Transmission Path: From Station GAB	to Station GPA	
Multiplex Rack No. 1		
don't	- 1	
	EXPECTED	ACTUAL
13. CHANNEL RECEIVE LEVELS-co	ontinued	
Channel VF Out		
Channel il	(+7 dom = 0.5 dh	N/A dbm
Channel 2	$(+7 \text{ dbm} \pm 0.5 \text{ db})$	N/A dbm
Channel 3	$(+7 \text{ dbm} \pm 0.5 \text{ db})$	N/A dbm
Channel 4	$(+7 \text{ dom } \pm 0.5 \text{ db})$	N/A dbm
Channel 5	$(+7 \text{ dom } \pm 0.5 \text{ db})$	$\pm 7.0$ dbm
Channel 6	$(+7 \text{ dbm} \pm 0.5 \text{ db})$	747.0 dbm
Channel `7	$(+7 \text{ dom} \pm 0.5 \text{ db})$	$\pm 7.0  \text{dbm}$
Channel 8	$(\div 7 \text{ dom} \pm 0.5 \text{ db})$	<u>≠7.0 dbm</u>
Channel 9	$(+7 \text{ dom} \pm 0.5 \text{ db})$	N/A dbm
Channel 10	$(+7 \text{ dom} \pm 0.5 \text{ db})$	N/A dbm
Channel 11	$(+7 \text{ dom} \pm 0.5 \text{ db})$	N/A dbm
Channel 12	(+7' dbm' ± 0.5 db)	N/A dom
	DATE	18 JULY 1963
	TESTER/	Solander
	SUPERVISOR -	a Cl
싫다 그 모든 이름 하는 것으로 살아왔다면요.		James of hogenshi
	QUALITY ASSURANCE	melendelf
	GEETA'	abert & Newler
She	eet 4 of 4	The state of the s

	and the first of the second se	STATION	ID	
15	ID		· ·	
Transmission Path: From 1.D.	Station to 1, 6	Sta	tion	
fultiplex Group No. 1 £ 2				
12. A				
	EXPECTED		UAL	
GROUP INPUT LEVEL	H;	GROUP	1	· GROUP.
GROOF INPOT LEVEL				
Channel 1 63 kc Channel 2 67 kc Channel 3 71 kc	$(7.8 \text{ mv} \pm 0.8)$ $(7.8 \text{ mv} \pm 0.8)$ $(7.8 \text{ mv} \pm 0.8)$	mv) 80	_mv _mv	7.6
Channel 4 75 kc	$\frac{1}{3}$ $\frac{1}$		rnv	8.0 7.9
Channel 5 79 kc	$(7.8 \text{ mv} \pm 0.8)$	mv 80	mv	8.0
Channel 6 83 kc Channel 7 87 kc	$(7.8 \text{ my} \pm 0.8)$ $(7.8 \text{ my} \pm 0.3)$	200	_mv	8.1
Channel 8 91 kc	$(7.8 \text{ mv} \pm 0.8)$	mv)	mv	8.1
Channel 9 95 kc Channel 10 99 kc	$(7.8 \text{ mv} \pm 0.8)$	7.9 ——	mv	8.0
Channel 11 \ 103 kc	$(7.8 \text{ mv} \pm 0.8)$	mv) 022	mv	8.0
Channel 12 107 kc/	$(7.8 \text{ my} \pm 0.8)$	mv) 8.0	mv	8.4
CHANNEL SIGNALLING LEVEL AT C	ROUP INPUT			
C	125 +0 03			
	.125 mv $\pm 0.02$ m .125 mv $\pm 0.02$ m	.113		128
Channel 3 68.125 kc	.125 mv ±0.02.70	(v) 130		120
	.125 mv $\pm 0.02$ m .125 mv $\pm 0.02$ m	V) .120	_mv	125
Channel 6 80.125 kc	.125 mv ±0.02 m	(V) 120	mv '	110
A COLOR	.125 my ±0.02 m	(V) 112		128
Channel 8 88.125 kc . (Channel 9 92.125.kc (	.125 mv $\pm 0.02$ m .125 mv $\pm 0.02$ m	11) . 127	mv .	140
· Channel 10 96.125 kc	.125 mv ±0.02 m		_	127
	.125 mv ±0.02 m .125 mv ±0.02 m	1440	_mv	135
		.130		139
3. GROUP TRANSMIT LEVEL		1.2		
MRC-85, MRC-80 & FRC-39 A(V) Stations	$(13.7 \text{ mv} \pm 0.7.$	mv)NA-	_mv /:	3.8
MW503A LOS Stations	$(4.9 \text{ mv} \pm 0.2)$	mviWA	mv N	IA
			/	

	10	STATION I.D.	
Pransmission Path From Station_	H.D.	To Station 1C.	
Pultiplex Group No#2-Lon			
GROUP RECEIVE LEVEL		EXPECTED . A	CTUAL LOW GROUP.
GRP IN (TP-7)  MRC-85, MRC-80 & FRC-39A(V)		(13.7 mv ± 1.5 mv) N/A	
MW-503A LOS (except GPA)  MW-503A LOS (GPA only)  GRP OUT (TP-4)		(15.5 my ± 1.8 mv) N/A (7.7 mv ± 1.0 mv (18.0 mv ± 1.0 mv) N/A (18.0 mv ± 1.0 mv) N/A	mv N/A mv N/A 18.5
CHANNEL RECEIVE LEVELS			
Channel 1 Channel 2 Channel 3 Channel 4 Channel 5 Channel 6 Channel 7 Channel 8 Channel 9 Channel 10 Channel 11 Channel 12 Channels 1 2 3 Frequency	NSFA SITE I.CC 3400 & RECORD ACTUA	Ed.	dbm 7. dbm 6.5 dbm 7. dbm 7.2 dbm 7.4 dbm 7.5 dbm 7. dbm 7. dbm 7.2 dbm 7.2 dbm 7.2 dbm 7.2 dbm 7.3 dbm 7.3 dbm 7.1
100	6 77- 698	8 6.5 8.5 7.5 7	7
		7.25 65 8 75 6.5	
↑ 300 8. <i>8 65 75</i>	7.5 8 7.75	7.75 7 8 8 7	7 dbm
		7.25 7.25 7.5 7.75 7.25	
		7.5 8 7.75 8 8 7.75 7.75 7.5 8 7.5	
W	Pheet 2 of 4		2-29

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#### FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET

MC-50 MULTIPLEK LINK TEST

STATION

LI diisiiii Siloii	ath. I Ithi Station						
Multiplex Group No. Low GROUP.							
CHANNE	CHANNEL FREQUENCY RESPONSE (continued)						
Channels	EXPECTED ACTUAL : 1 2 (3) 4 5 6 7 (8) 9 10 (11) 12						
Frequency							
1500	75 7 8 8.4 85 8 825 8 7.75 8.25 7.25 dbm						
1750	75 65 75 8 8 8 7 65 75 8 65 7 dbm						
2000 .	7565 8 8 8 8 8 7 7.75 6 7 dbm						
2250	8.25 7 9 775 8 75 8 775 75 8 7 8 dbm						
2400	8 675 825 75 775 725 7.15 75 7 7.75 6.5 7.5 dbm						
2750	75 7 9 725 7.5 725 775 7 725 75 7 7 dbm						
3000	7.25 7.25 9.25) 7.25 7.25 7.5 7.25 7.25 dbm						
3200	75 6 8 65 75 7 7.16 55 7 5 7 65 7 dom						
3300	75 5 7 65 7.5675 7.75 (438) 7.25 7 6 6 dbm						
3400	8 525 7 7.5 825 7.5 8 45 7.75 7.5 6.25 5.75 dbm						

#### LIMITS WITH RESPECT TO 1 KC LEVEL

300-399 cps (\$ 0.75 db, -2.9 db)

400-599 cps (+ 0.75 db, -1.5 db)

600-2400 cps (+0.75 db, -0.75 db)

2401-3000 cps (+0.75 db, -1.5 db)

3001-3400 cps (+0.75 db, -2.9 db)

NOTE: If a channel does not meet the above limits and cross connections are rearranged on the VF Amplifier Card, the complete response for that channel will be rechecked and the new figures recorded.

	STATION D
Transmission Path; From C	Station to / D Station
Multiplex Group No. Low GROUP	
8. GAIN CHANGE	
OUTPUTLEVEL	EXPECTED ACTUAL
Input Level	-16 dbm ref14 dbm -2dbm
Channel 1	+7 dom +9 dom +13 dhim
Channel 2	e dbmdbmabmabm
Ghannel 3	B dbm +10 dbm +12 dbm
Channel 4	dbn dbn dbn
Channel 5	dbm +13 dbm
Channel 6	w dom dom dom dbm
Channel 7	dbm 1,2 dbm
Channel 8	dom dbm dbm
Channel 9	1.8 dbm 110 dbm 113 dbm
Channel 10	dbmdbm
Channel 11	dbm 14 dbm
Channel 12	dbus dbus dbus

#### LIMITS

- a. Channel output level should increase at least 1. 65 db with a 2 db increase in channel input level (from -16 dbm input to -14 dbm input)
- b. Channel output level should not increase more than 8 db with a 14 db increase in channel input leve (from -16 dbm input to -2 dbm input)

TESTER M. Melagin—
SUPERVISOR R. Collano

OUTALITY ASSURANCE 136,000

			ST	ATION /
Tran	smission Path: From_	10	Station to /C	Station 10
Multi	iplex Group No/			
			EXPECTED	ACTUAL
1.	GROUP INPUT LEV	EL		
	Channel 1	63 kc	$(7.8 \text{ mv} \pm 0.8 \text{ mv})$	7.8 mv
	Channel 2	67. kc	$(7.8 \text{ mv} \pm 0.8 \text{ mv})$	7.8 mv
	Channel 3	71 kc	$(7.8 \text{ mv} \pm 0.8 \text{ mv})$	75 mv
	Channel 4	75 kc 🐰	$47.8 \text{ mv} \pm 0.8 \text{ mv}$	2.8 mv
	Channel 5	79 kc	$(7.8 \text{ mv} \pm 0.8 \text{ mv})$	2 mv
	. Channel 6	83 kc	(".8 my $\pm 0.8$ my	7.× mv
	Channel 7	.87 kc	$(7.8 \text{ my} \pm 0.8 \text{ my})$	) 28 mv
	Channel 8	91 kc	$(?.8 \text{ mv} \pm 0.8 \text{ mv})$	2 mv
		95 kc	$(7.8 \text{ mv} \pm 0.8 \text{ mv})$	
	Channel 10	99 kc	$(7.8 \text{ mv} \pm 0.8 \text{ mv})$	
	Channel 11	103 kc	$(7.8 \text{ mv} \pm 0.8 \text{ mv})$	28 mv
	Channel 12	107. kc	$(7.8 \text{ my} \pm 0.8 \text{ my})$	28 mv
2.	CHANNEL SIGNALI	ING LEVEL A	T GROUP INPUT NA	ATIC
	Channel, 91	60.125 kc	(.125 mv ±0.02 mv)	mv
		64. 125 kc		mv
	· ·	68.125 kc	(.125 mv ±0.02 mv)	mv
	Channel 4		$(.125 \text{ my} \pm 0.02 \text{ my})$	my
		76. 125 kc	$(.125 \text{ my} \pm 0.02 \text{ my})$	my
		80.125 kc		mv
		84.125 kc	$(.125 \text{ my } \pm 0.02 \text{ my})$	my
	Channel 8		$(.125 \text{ my } \pm 0.02 \text{ my})$	mv
		92. 125. kc	$(.125 \text{ my} \pm 0.02 \text{ my})$	my
	Channel 10	96.125 kc	$(.125 \text{ my} \pm 0.02 \text{ my})$	my
	Channel II	100.125 kc	(.125 mv ±0.02 mv)	mv
	Channel 12	104. 125 kc	$(.125 \text{ my} \pm 0.02 \text{ my})$	my
	Onediner 12	101, 125 KC	-0.05	
3.	GROUP TRANSMIT	LEVEL		
₽°		2000	112 7	
			39 (13.7 mv $\pm 0.7$ mv	) <u>13.7 m</u> v
	A(V) Statio		1.1 9 my + 0 2 my	14. 70.

A STATE OF

	STATION /
Transmission Path From Station /D	To Station / C
Multiplex Group No/	
	EXPECTED ACTUAL
4. GROUP RECEIVE LEVEL	
GRP IN (TP-7)	
MRC-85, MRC-80 & FRC-39A(V)	(13.7 mv ± 1.5 mv) 14 mv
MW-503A LOS (except GPA)  MW-503A LOS (GPA only)  GRP OUT (TP-4)	(15.5 mv ± 1.8 mv)
5. CHANNEL RECEIVE LEVELS	
Channel 1 Channel 2 Channel 3 Channel 4 Channel 5 Channel 5 Channel 6 Channel 7 Channel 8 Channel 9 Channel 10 Channel 11 Channel 12 Channel 12 Channel 12 CHANNEL FREQUENCY RESPONSE	(±7 dbm ±0.5 db)  (±7 dbm ±0.5 db)
Channels 1 2 3 4 (5) 6	(7) 8 9 $(10)$ $(11)$ 12
Frequency	
300 +7.5 +8 +8 +5 (49) +6	48) +7 +7 +85-4 +75 com
400 S +7 +7 +6 +7.5 +2	F8 +7 +7 +7 E8 +7 dbm
600 - E. +7 +7 +8 +7 +25 +75	+75 +75 +7 +75 =1 +7 dbm
750 3 +7 +7 +8 +7 +25 +25	+7 +7 +8 +75 (4) +7 dbm
1000 ° +7 +75 +15 +7 +7 +75	+7 +7 +7 +7 +7 dbm
1250 10 +7 +7.5 +7.5 +7 +7.5	+7 +7 +7.5 +7 (+8) +7 dbm
Sheet 2 of 4	2-33

STATION	10
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Transmission F	ath: From Station 1D To Station 1C	
Multiplex Group	No. 1, Lou)	
CHANNE	L FREQUENCY RESPONSE (continued)	
Channels	EXPECTED ACTUAL : (1) 2 3 4 (5) 6 (7) 8 (9) (10) (11) (12)	
Frequency		
1500	+7 +7 +7 +7.5.8 +7 +8 +7.5.7.5 +8 +9 +7 dom	
1750	+75+7+75+75+7+7+8+7+8 +8+45+7 dbm	
2000	(8) +7 +8 +75 +8 +7 +8 +7 +8 +8 +9 +6 dbm	
2250	18 +7 +75+7 +8 +7 +75 +7 +75 +75 +10 +65 dbm	
2400—	48 +75 +75 +75 +8 +7 +75 +7 +75 +75 +70 +6 dbm	
2750	+7.5 +8 +8 +7 +8 +7 +7 +7 +7" +7.5 FO +6 dbm	
3000 —	F8 +75 +8 +6 F8 +6 +7 +7 +75 +7 (95) +6 dbm	
3200	(+85)+6 +75+5 +8 +5 +7 +65+7 +7 +9 +55 dbm	
3300	79 +55 +7 +5 PB +5 +7 +6 +75 +7 (485) +5 dbm	
3400 —	+7 +5 +7 +5 (85)+5 +7 +65 +5 +75(+8) (4) dbm	

#### LIMITS WITH RESPECT TO 1 KC LEVEL

300-399 cps (# 0.75 db, -2.9 db)

400-599 cps (+ 0.75 db, -1.5 db)

600-2400 cps (+0.75 db, -0.75 db)

2401-3000 cps (+0.75 db, -1.5 db)

3001-3400 cps (+0.75 db, -2.9 db)

NOTE: If a channel does not meet the above limits and cross connections are rearranged on the VF Amplifier Card, the complete response for that channel will be rechecked and the new figures recorded.

	STAT	ION /C	
Transmission Path; From / /	Station	to 1c	Station
Multiplex Group No/			
8. GAIN CHANGE			
OUTPUTLEVEL	EXPECTED	, A(	CTUAL
Input Level		-16 dbm ref.	-14 dbm -2dbm
Channel 1	S	8 abm	10 dbm +13.5dbn
Channel 2	(4 e /	-/	10 dbm/3/5 dbn
Ghannel 3	3 B	1 / -	10,5 dbm/3,5 dbn
Channel 4	e /		+10 dbm 13,5 dbn
Channel 5	ō	/	+10 dbm 135 dbn
Channel 6	W	and the same of	+10 dbm +13 dbm
Channel 7		- the	10,5 dbm 12 dbm
Channel 8		2.5 dom	+10 dbm +13 dbm
Channel 9		8.5 dom	+10,2 dbm +14 dbm
Channel 10		8 dbm	10 dbm 12 15 dbm
Channel 11		7.5 dbm	95 dbm 12 dbm
Channel 12		8 dbm	(9) dbm 45 dbm

#### LIMITS

- a. Channel output level should increase at least 1.65 db with a 2 db increase in channel input level (from -16 dbm input to -14 dbm input)
- b. Channel output level should not increase more than 8 db with a 14 db increase in channel input leve (from -16 dbm input to -2 dbm input)

DATE 17 JUNE 63

TESTER J Deckers

SUPERVISOR JA Some A Deckers

QUALITY ASSURANCE William & Deckers

CEETA-Robert D Legler

Sheet 4 of 4.

			STAT	ION GPA
Transmission Path: From_	GPA	Station to	GAB	Station
Multiplex Group No. Ra	ck #1			
			4	
		EXPECTE	ED .	ACTUAL
1. GROUP INPUT LEV	EL			
Channel 1	63 kc	$(7.8 \text{ my} \pm$	0, 8 my)	N/Amv
Channel 2	67. kc	(7.8 mv ±		II mv
	71 kc	$(7.8 \text{ my} \pm$		it mv
Channel 4	75 kc	47.8 mv ±		ii mv
Channel 5		$(7.8 \text{ my} \pm$		7.8mv
. Channel 6		(". 8 my ±		7.8mv
Channel 7		$(7.8 \text{ my} \pm$		7.8mv
Channel 8		$(?.8 \text{ my} \pm$		7.8mv
	95 kc	(7.8 my ±		N/Amv
Channel 10	99 kc	$(7.8 \text{ my} \pm $		n/Amv
Channel 11	103 kc	$(7.8 \text{ my} \pm (7.8 \text{ my} \pm$		* T mv
	107 kc	$(7.8 \text{ mv} \pm $		TT mv
Channel 12	107 KC	(7. 6 MV ±	0.0 11107	
2. CHANNEL SIGN'ALI	ING LEVEL A	T GROUP INPU	T··	
	94.	See note		i San Anna
Channel 1	60.125 kc	$(.145 \text{ mv } \pm 0.)$	02 mv)	N /mv
Channel 2	64. 125 kc	$(.125 \text{ mv} \pm 0.$	02.mv)	ii mv
Channel 3	68, 125 kc	(.1\$5 mv ±0.	02.mv)	it mv
Channel 4	72. 125 kg	(.125 mv ±0.		* * mv
	38 76x 175 kc	(.125 mv ±0.		, A mv
	34 st. 175 kc	$(.125 \text{ my } \pm 0.$		· / mv
Channel 7	30xx.175 kc	$(.125 \text{ my } \pm 0.$		.4 mv
	7922.175 kc	$(.125 \text{ my} \pm 0.$		.4 mv
Channel 9	92. 125. kc	$(.125 \text{ mv} \pm 0.$		N/Amv
Channel 10	96. 125 kc	$(.125 \text{ my } \pm 0.$		TI mv
Channel 11	100_125 kc	$(.125 \text{ my } \pm 0.$		TT mv
	104. 125 kc	$(.1.75 \text{ mv} \pm 0.$		11 mv
		. 145 1111 -5	:.	
3. GROUP TRANSMIT	LEVEL			
MRC-85, M	C-80 & FRC-3	39 (13.7 mv	±0.7.mv)	N/Amv
A(V) Station	ns .			
MW503A LO	S Stations	$4.9 \text{ mv} \pm$	0.2 mv)	4.9mv
Note: It has been per Mr. H.		.4 mv to conf .E.C. Enginee		Motorela specs.
		nf /	* 17.	

		STATION	GPA
Transmission Path From Station_	GPA	To Station	GAB
Multiplex Group No Rack #1			
	143 /	EXPECTED ?	ACTUAL
4. GROUP RECEIVE LEVEL			
GRP IN (TP-7)			
MRC-85, MRC-80 & FRC-39A(V)		$(13.7 \text{ mv} \pm 1.5 \text{ mv})$	N/Amv
MW-503A LOS (Excepts GRA)x MW-503A LOS (GPA only) to GA'. GRP OUT (TP-4)		$(15.5 \text{ my} \pm 1.8 \text{ my})$ (7.7  my + 1.0  my) (18.0  my + 1.0  my)	N/A mv
5. CHANNEL RECEIVE LEVELS			
Channel 1 Channel 2 Channel 3 Channel 4 Channel 5 Channel 6 Channel 7 Channel 8 Channel 9 Channel 10 Channel 11		(±7 dbm ±0.5 db) (±7 dbm ±0.5 db)	N/Adbm  i dbm  dbm  dbm  dbm  7 dbm
Channel 12 Note: Adjusted to +7. 6. CHANNEL FREQUENCY RESPONS	Œ	(±7 dbm ±0.5 db)	tt dbm
			140.54
EXPECTED	ACTUA	4.L	
Channels 1 2 3	4 5 6	7 8 9 10	11 12
Frequency		CHC .	
300 . N/A N/A N/A R	N/A 6.6 6.6	5.75 7.7 6.6 N/A N/A	N/A N/A dom
400 S	/	7.4 6.8	dbm
600 8.	7.5 7.4	7.5 7.5	dbm
750 B	7:5 7.4	7.3 7.4	dbrn
1000 e	7 7	7. 7.0/	dbm
1250 0	7 6.5	7.2	dorn
W W	0.2	7	
S	et 2 of 4		1-37
ne en e	EL 2 01 4		4 1

Station GAB Test Results

TEST: Transmission Path GPA to station GAB MULTIPLEX group No. 2

### 6. Channel Frequency Response

Channel	8
Frequency	
100	
300	5.75
400	6.7
600	7.0
750	7.0
1000	7.0
1250	7.2
1500	7.0
1750	7.0
2000	6.8
2250	6.8
2400	7.2
2750	7.6
3000	7.3
3200	6.9
3300	6.0
3400	5.0
2400	2.0

me-QA

STATION GPA

Transmission	Path: From Station GPA To Station GAB	
Multiplex Gro	up No. Rack #1	
CHANN	EL FREQUENCY RESPONSE (continued)	
	EXPECTED ACTUAL	
Channels	1 2 3 4 5! 6 7 8 9 10 11 12	
Frequency	7.0	
1500	N/A N/A N/A N/A7.5 6.7 7.5 7.2 N/A N/A N/A N/A	dbm
1750	7.5 7 7.7 7.5	dbm
2000 .	7.4 7 7.6 7.5	dbm
2250	7.2 7.1 7.5 7.5	dbm
2400	7.2 7.2 7.5 7.5	dbm
2750	7.3 7.3 7.5 7.85 see note	dbm
3000	6.6 6.9 7.3 7.7	dbm
3200	6.4 6.5 7.3 7.5	dbm
3300	6.6 6.5 7.3 7.2	dbm
3400	6.8 6.4 7.3 6.7	dbm
Mata	7 85 is out of spece	
Mone:	7.85 is out of specs. LIMITS WITH RESPECT TO 1 KC LEVEL	

300-399 cps (# 0.75 db, -2.9 db)

400-599 cps (+ 0.75 db, -1.5 db)

600-2400 cps (+0.75 db, -0.75 db)

2401-3000 cps (+0.75 db, -1.5 db)

3001-3400 cps (+0.75 db, -2.9 db)

NOTE: If a channel does not meet the above limits and cross connections are rearranged on the VF Amplifier Card, the complete response for that channel will be rechecked and the new figures recorded.

Sheet 3 of 4

			STAT	ION	GPA		
Transmission Path;	From	GPA	Station	to	GAB:	Station	
Multiplex Group No.	Rac	ck #1					
8. GAIN CHANGE							
OUTPUTLEVEL			EXPECTED		AC.	<b>TUAL</b>	
Input Level	•			-16 dbm	ref.	-14 dbm	-2dbm
Channel 1			S	.N/A	_dbm_	N/Adbm_	N/Abm
Channel .2		in the second second	e e	11	dbm	* * dbm	* * dbm
Ghannel 3			В	11	dbm	'' dbm	* * dbm
Channel 4			e	11	dbm	† † dbm	* * dbm
Channel 5			0	+6.85	dbm_+	8.7 dbm+	13.5bm
Channel 6			w			8.7 dbm]	
Channel 7				•		8.7 dbm]	
Channel 8				+6.85	dbm_	8.7 dbm]	2 dbm
Channel 9				BIN	dbm	N dbm_	NB dbm
Channel 10				1	dbm_	dbm	_dbm
Channel 11					dbm_	dbm	dbm
Channel 12		•			dbm	dbm	dbm

#### LIMITS

- a. Channel output level should increase at least 1.65 db with a 2 db increase in channel input level (from -16 dbm input to -14 dbm input)
- b. Channel output level should not increase more than 8 db with a 14 db increase in channel input leve (from -16 dbm input to -2 dbm input)

	DATE	20 July 196	3
	TESTER	Mrs Hy	uz.
S	UPERVISOR /	Wengard	,
QUALITY	ASSURANCE	U. Evin	_
	GEEIA /	Pelant !	
Sheet 4	of 4	1 2	7

### FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET

MC-50 MULTIPLEX LINK TEST

			STAT	rion GAB	4
Tran	nsmission Path: From_	GAB	Station to GPA	Station	4
Mult	iplex Group No. 1	4.7			1
		r	EXDECSED	A CENTA I	•
			EXPECTED	ACTUAL	
1.	GROUP INPUT LEV	/EL			
	Channel 1	.63 kc	$(?.8 \text{ mv} \pm 0.8 \text{ mv})$	N/A mv	
	Channel 2	67.kc	$(7.8 \text{ mv} \pm 0.8 \text{ mv})$	N/A mv	
	Channel 3	71 kc	$(7.8 \text{ mv} \pm 0.8 \text{ mv})$	N/A mv	
	Channel 4	75 kc	$(7.8 \text{ mv} \pm 0.8 \text{ mv})$	N/A mv	
	Channel 5	79-kc 91 KC	$(7.8 \text{ mv} \pm 0.8 \text{ mv})$	7.8 mv	
	. Channel 6	83 kc 87 KC	$(".8 \text{ my} \pm 0.8 \text{ mv})$	7.8 mv	
	Channel 7	87 kc 83 KC	$(7.8 \text{ mv} \pm 0.8 \text{ mv})$	7.8 mv	
	Channel 8	91 kc 97 KC	$(?.8 \text{ mv} \pm 0.8 \text{ mv})$	7.8 mv	
	Channel 9	95 kc	$(7.8 \text{ mv} \pm 0.8 \text{ mv})$	N/A mv	
	Channel 10	99 kc	$(7.8 \text{ mv} \pm 0.8 \text{ mv})$	N/A mv	
	Channel 11	103 kc	$(7.8 \text{ mv} \pm 0.8 \text{ mv})$	N/A mv	
	Channel 12	107. kc	$(7.8 \text{ mv} \pm 0.8 \text{ mv})$	N/A mv	
2.	CHANNEL SIGNALI	LING LEVEL A	T GROUP INPUT		
		(0.105)	( ) 25 ( ) 25 ( )	27/4	
	Channel 1	60.125 kc	$(.125 \text{ mv} \pm 0.02 \text{ mv})$	N/A mv	
	Channel 2	64. 125 kc	(.125 mv ±0.02 mv)	N/A mv	
	Channel 3	68. 125 kc	(.125 mv ±0.02.mv)	N/A mv	
	Channel 4			N/A mv	
	88175 MCChannel 5	70. 125 KG	(.125 mv ±0.02 mv)	13 mv	
	84.175/CcChannel 6.	04 125 1-	$(.125 \text{ mv} \pm 0.02 \text{ mv})$ $(.125 \text{ mv} \pm 0.02 \text{ mv})$	-14/mv	
	80.175/(cChannel : 7	09 125 1-	(.125 mv ±0.02 mv)	.145 mv	
	76.175 ACChannel 8	00 <del>. 125 k</del> c	(.125 mv ±0.02 mv)	_115 mv	
		92. 125. kc	$(.125 \text{ my } \pm 0.02 \text{ my})$	N/A mv	
	Channel 10	96.125 kc 100.125 kc	The state of the s	N/A mv	
	Channel 11	100.125 kc	$(.125 \text{ mv} \pm 0.02 \text{ mv})$ $(.125 \text{ mv} \pm 0.02 \text{ mv})$	N/A mv	
3.	GROUP TRANSMIT	LEVEL	ucted according to the te	st procedures.	
	MRC-85, MI A(V) Statio		$(13.7 \text{ mv} \pm 0.7 \text{ mv})$	-N/A-mv	
	MW503A LO		$(4.9 \text{ mv} \pm 0.2 \text{ mv})$	4.9 mv	

										S	TATI	ON_	G	AB	
Tr	ansmissio	on Path	From	Station	1		GAB			Γο Sta	tion_	GPA			
Mr	ltiplex Gr	oup No.	-	1											
									EXP	ECTE	D	2	AC	CTUA	L
4.	GROUP I	RECEIVI	E LEV	EL											
	GRP IN	(TP-7)													
	FRC-3	-85, MR 89A(V)							(13.	7 mv	± 1.5	mv)		N/A	_mv
; 15 ;	MW-5 GRP OU	503A LO 503A LOS T (TP-4)	S (exc (GPA	ept GPA only)	()				(7.7	mv + 1	± 1.8 .0 mv 1.0 m			15.5 N/s	mv mv mv
5.	CHANNE	L RECE	IVĖ L	EVEL	S				11-						
	Chan Chan Chan	nel 3 nel 4	•						(±7 d (±7 d (±7 d	lbm ± lbm ± lbm ±	0.5 d 0.5 d 0.5 d	b) b) b)		N/A N/A N/A	_dbm _dbm _dbm _dbm
	Chan	nel 57			4						0.5 d 0.5 d				dbm dbm
	Chan										0.5 d			47.0	dbm
	Chan					i e va			•		0.5 d			77.0	dbın
		nel 9						di v			0.5 d			-N/A-	dbm
		nel 11						4: 4:			0.5 d				_dissi-
	Chan	nel 12				1					0.5 d				dbm
6.	CHANNE	LFREQ	UENC	Y RES	PONS	E				ix.	cash t				
1		ii -	1												
	EX	PECTEI					A	CTUA	L						
C	hannels		1	.2 .	3. 4	1	5 .	6	7	8	9	30	11	12	
F	requency														
	300		N/A	N/A	N/A.	n/a	7.1	7.3	7.6	6.7	N/A	_N/A	N/	AN/	Adbm
	400	S	11	11	11						.10				dbm
	600	e .	п	- 21 - 6-	11 - 1	Ħ	7:3	7.7	7.75	6.75	- 14	. 11	11 -	11	dbm
	750	В	71	. 11	11 .					6.9	1	- 11	n	11	dbm
	1000	e	И	н	- 11					7.0/		11	-11	н	dbm
	1250	110	п	п.	11	- 11	7:1	7.1	6.9	6.95	. 11	h.	n	^H	dbrn
The second		w H			$S_{ m he}$		of 4				i je			2-	41

STATION GAB

Transmissio									Stati	The same	p			
Multiplex Gr	oup No	٥			1									
CHAN	NEL F	REQU	JENC	YRE	SPO	NSE	(cont	inued	)					
		EX	PEC'	TED	ea ·		A	CTU.	AL					
hannels		1 -	2	3	4	5!	6	7	8	9 1	0 :	11	12	
requency	• 5		•											
1500		N/A	N/A	N/A	N/A	7.6	7.3	7.0	7.0	N/A	N/A	N/A	N/A	dbm
1750		11	11	. 11	ii .	7.3	7.1	6.9	6.8	11	11	n	H	dbm
2000 .		11	н	ın .	ш,	7.2	6.9	6.9	6.8	н	Ħ	ii .	Ĥ,	dbm
2250		11 - "	11	11	in	7.3	6.8	6.8	6.9	п	п	11 .	tt .	dbm
2400		11	m .	in	in	7.7	6.9	7.0	7.1	H	ir	10:	11	dbm
2750		n	'n	11	in i	7.2	7.0	7.1	7.6	W:	n	н	11	dbm
3000		n	n	11	n	6.8	6.2	6;8	7.0	п	19	. 11	11	dbm
3200		11	ıı	, H	H	7.0	6.0	6.1	5.8	11	ü	н	11	dbm
3300		11	n	. H	11	6.9	5.5	5.5	4.5	n	11	n	11:	dbm
3400		ù	ที	111	nı	E E	5.1	1. 0	138	D 11 11	inn	ı it.	H	dbm

#### LIMITS WITH RESPECT TO 1 KC LEVEL

300-399 cps (# 0.75 db, -2.9 db)

400-599 cps (+ 0.75 db, -1.5 db)

600-2400 cps (+0.75 db, -0.75 db)

2401-3000 cps (+0.75 db, -1.5 db)

3001-3400 cps (+0.75 db, -2.9 db)

NOTE: If a channel does not meet the above limits and cross connections are rearranged on the VF Amplifier Card, the complete response for that channel will be rechecked and the new figures recorded.

Sheet 3 of 4

			STATION GAB
Transmission Path;	From	GAB	Station to GPA Station
Multiplex Group No.	1		
8. GAIN CHANGE			
OUTPUTLEVEL			EXPECTED ACTUAL
Input Level		,	-16 dbm ref14 dbm -2dbm
Channel 1			S N/A dom N/A dbm N/A dbm
Channel 2			e пdbm_ пdbm_ пdbir
Ghannel 3		r	B dbm # dbm dbm dbm
Channel 4			e " dbm " dbm " dbn
Channel 5			0 47.0 dbm 49.0 dbm/13.2 dbm
Channel 6			w
Channel 7			#7.0 dbm 79.0 dbm/12.2 dbm
Channel 8	a de la companya de l	71	47.0 dbm/9.0 dbm/1/1.3 dbm
Channel 9	•		N/a dbm N/A dbm N/A dbm
Channel 10			" dbm " dbm " dbm
Channel 11			# dbm # dbm # dbm
Channel 12			a dbm a dbm dbm

#### LIMITS

1:

- a. Channel output level should increase at least 1.65 db with a 2 db increase in channel input level (from -16 dbm input to -14 dbm input)
- b. Channel output level should not increase more than 8 db with a 14 db increase in channel input leve (from -16 dbm input to -2 dbm input)

DATE 20 JULY 1963	
TESTER July. Third	
SUPERVISOR - Starping Starping	Li
QUALITY ASSURANCE Conford	,
GEETA Polist & Light	
Sheet 4 of 4	

#### FEDERAL ELECTRIC CORPORATION

BR11/61

## BIG RALLY II PROJECT DATA SHEET AN/TCC-3 MULTIPLEX STATION TEST

				STATION GAB	
	Transmission Path: From St	ation GAB	_to	STATION GEL	
	TM 1-004 - FEC Installed TM 1-004 - FEC NOT Instal	led XXXX			
	AN/TCC-3 MULTIPLEX				
				EXPECTED	ACTUAL
	Carrier Supply Output Level				
	8 kc (TB 901; Terminals 1	.2)	1	.89 ± 0.15v	84
	12 kc (TB 901; Terminals 4 16 Kc (TB 901; Terminals 6 20 Kc (TB 901; Terminals 9	,7)		.89 ± 0.15v .89 ± 0.15v .89 ± 0.15v	98 84 90
2.	Channel Levels	Unmodified		Modified	
	Channel I Channel 2 Channel 3 Channel 4	1 +0.5 dbm 1 +0.5 dbm 1 +0.5dbm 1 +0.5dbm		7 ± 0.5 dbm 7 ± 0.5dbm 7 ± 0.5dbm 7 ± 0.5dbm	
3.	Channel Noise Measuremen	nt			
	Channel I Channel 2 Channel 3 Channel 4	14dba 14dba 14dba 14dba		20 dba 20 dba 20 dba 20 dba	¥ dl di dl
				DBA. Unable to S559 NOISE MEASU	
			•	DATE STAD	1963
			TE	STER 4 /4/10	Vreyakir_
		SL	JPER\	ISOR truck	a Skorpensk
	• •	QUALITY	11224	RANCE / R	

Sheet I of I

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#### FEDERAL ELECTRIC CORPORATION

BR11/61

### BIG RALLY II PROJECT DATA SHEET AN/TCC-3 MULTIPLEX STATION TEST

			STATION	GEL
	Transmission Path: From Station	n GET, to	STATION	GAB
	TM 1-004 - FEC Installed TM 1-004 - FEC NOT Installed	X		
	AN/TCC-3 MULTIPLEX			
			EXPECTED	ACTUAL
1.	Carrier Supply Output Level	( )		
	8 kc (TB 901; Terminals 1.2)		.89 <u>+</u> 0.15v	.76 v.
	12 kc (TB 901; Terminals 4,5). 16 Kc (TB 901; Terminals 6,7) 20 Kc (TB 901; Terminals 9,10)		.89 ± 0.15v .89 ± 0.15v .89 ± 0.15v	
2.	Channel Levels	Unmodified	Modified	
	Channel 1 Channel 2 Channel 3 Channel 4	1 ±0.5 dbm 1 ±0.5 dbm 1 ±0.5dbm 1 ±0.5dbm	7 ± 0.5 dbm 7 ± 0.5dbm 7 ± 0.5dbm 7 ± 0.5dbm 7 ± 0.5dbm	1 dbm 1 dbm 1 dbm 1 dbm
3.	Channel Noise Measurement			
	Channel I Channel 2 Channel 3 Channel 4	14dba 14dba 14dba 14dba	20 dba Be 20 dba 20 dba 20 dba	low meter scatta dba
		T	DATE 21 J	uly 1963
			VISOR Chaley	J. Hormath

QUALITY ASSURANCE

Sheet I of I

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	GAB	STATIO	N	GAB	<u> </u>		
Transmission Pa	th: From Station	to Sto	ation_	-G	AB-		
CHANNEL GA	IN AND FREQUENCY RESE	ONSE					
Frequency	Expected Level			Chan			
1000 cps	+ 7±0.5 dbm		. 2		3	4	
reference	or + 1 ± 0.5 dbm	7	+1		+1	+1	dbm
	Expected Level with respect to 1 KC reference						
300	+1.5-1.5 db		=0.	5	+0.5	+0.9	dbm
400	+ 1.5 - 0.4 db		+1.	1	+1.3	+1.4	dbm
600	+ 1.5 - 0.25 db		+1.	2 -	+1.0	+1.0	dbm
2400	+ 1.5 - 0.7 db		+1.	i vi	+1.2	+1.0	dbm
3000	+ 1.5 - 0.7. db		+1.	3	+0.8	+0.3	dbm
3400	+ 1.5 - i.25db		+0.	5	+0.8	+0.7	dbm

	DATE	1-30-	64
	TESTER	Man Yn	860
	SUPERVISOR	一成的	Williel
QUA	LITY ASSURAN	ICE Mari	(Jan 6) a
	GEE!	1. Curien ol	Copland .

		STATIO	N GEL			
Transmission Path	: From Station GEL	to Ste	ation GAB	R		
CHANNEL GAIN	N AND FREQUENCY RE	SPONSE				
Frequency	Expected Level		Cha 2	nnels 3	4	
1000 cps reference	+ 7±0.5 dbm or + 1±0.5 dbm	_1_	_1	1_	1_	_dbm
	Expected Level with respect to 1 KC reference	5				
300	+1.5-1.5 db	5	0 7	<u>5</u>	1	dbm
400	+1.5 - 0.4 db	8	_1.2_	1 1 1	.95	dbm
600	+ 1.5 - 0.25 db	1.6	_1.1_	1	85	dbm
2400	+1.5 - 0.7 db	_1_	. 95	1	1.3	dbm
3000	+ 1.5 - 0.7 db	.85	1.2	5	.25	dbm
3400	+ 1.5 - 1.25db	45	0	7	0	dbm
	NOTE. ABOVE A	RE ACTUAL	METER RE	ADINGS		1

TESTER Levres & Banets
SUPERVISOR Chiling Howards

QUALITY ASSURANCE | Bonched

GEE IA O MA Sheet 1 of 1

Station ID

Date 16 June 63

Back to back special tests

Test # 1

Place a terminating resister plug into the CHAN IN jack of channel # 1 and read the noise on the CHAN OUT jack of channel # 1. Repeat for the remaining 23 channels # 7 db Added for convector Factor, MW. Requirements 18 db 10.

Migh Group channels # 1-10.5 X Low Group channels # 1-68 X 2-16.5 3-16.5 5-16.5 5-16.5 7-16.5

Test # 2

Place a -16db test tone into the CHAN IN jack of the channel indicated. Place a terminating resistor into the adjacent CHAN IN jacks. Read the cross talk om the CHAN OUT jacks as listed.

Tone on channel 1	Measure on channels ${2-bi}$
7	3-67. 5-1-2 6-6258-615
10	budchannel Filter 12815 2-50
7	3-58-5 5-54 6-54 8-58-5
10 12	9 <u>-56-5</u> 11 <u>54</u> 1 <b>1</b> -56

그 없는 경기를 가는 가게 되었다. 이 그래까 하게 되었다면 하는 것을 하면 있는
Date 16 June 63
Tester / style for the
Supervisor 12 6 - 12 66-645
Quality assurance 18. F. Jsess.
VRV.

		N	OISE TEST	<b>RX</b>
7/9/4 GK -TO-	-IC	MUX RACK	#2 EXCITER 2	
CHANNEL	# S	IGNAL	NOISE SIGN	AL TO NOISE
1		+7	. <b>-</b> 53	-60
2		+7	-55	<b>-</b> 62
3		<b>+</b> 7	<b>-</b> 35	<b>-</b> 42
4		+7	<del>-</del> 53	<b>-</b> 60
5		+7	<b>-</b> 52	<b>-</b> 59
6		+7	-50	-57
7		.+7/	- <del>-</del> 53	<b>–</b> 60:
8		+7	<del>-4</del> 0	-47
9		+7	-36	<del>-1+</del> 3
10		+7	-41	<del>-</del> 48
11		+7.	<b>-</b> 46	<b>-</b> 53
12	A STATE OF THE STA	+7	-46	-53
1 23 456 78 910 11 12		BACK TO +8.5 +8 +7.5 +7.5 +7 +7 +7 +7 +7.5 +7.5 +7.5 +7	BACK - 58 - 58 - 58 - 59 - 60 - 53 - 59 - 59 - 59 - 58 - 59 - 56	-66.5 -66.5 -66.7 -66.7 -66.6 -66.6 -63. -63.

\*Subtract signal to noise reading from 85 to get dba Norst channel is channel 6 at 25dba all others are between 22 and 18 DBA

Robert No Legler

### BACK TO BACK SINGLE TONE (1000 CPS ) CROSS TALK TEST

F			# WITH		LEV	EL TAKEN	ONE	CHANNEL	HIGH
00	Service St.	LEVEL I	AKEN ONE	E CHANNI	EL LOW	CASTA TY	1304	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	The same
	ATT 6 2727	6		10	hannel	Lauft Care 14 Aug		Ichany	10/

CHANNEL 1	Ichannel Higher 3dbm	/Chauye/ Lover No Channel low
2	2d bm	2dbm
3	4	4
4	2	2
5	0	6
6	3	1
7	13	1
8	); 1	2
9	3	4
10	3	2
11	9	2
. 12	No Channel High	5.5

# FEC BIG RALLY II PROJECT DATA SHEET MC-50

Station GPA -GAB

Back to back id∲₽ noise

Place a terminating resister into the chann IN jack of each channel and read the resulting noise on the chan OUT jack of each channel. (4 r DBM correction F-LA weighting)

Chan	#5	11DBA	Ø
	6	11	
	7	11	_
	8	11	

TEST # 2

Place a -16db test tone into the chan IN jack of the channel indicated. Read the cross talk on the Chan OUT jacks indicated. Terminate the adjacent channels.

NOTONE CHANNEL NOISE	TONE LWR	TO NE UPPER
5 11 DBA Ø		12
7 <u>11</u> 8 <u>11</u>		12 N/A

Date 15 July 63

Tester //www. Quinn

Supervisor 1. Wester

Quality Assurance (Warring Visit)

GEETA AT follows.

# FEDERAL ELECTRIC CORPORATION B IG RALLY 11 PROJECT

#### DATA SHEET

# MAIN LINE ORDER WIRE STATION TEST

STATION 10

- NOTE: 1. All EXPECTED levels for each station are given on either Figure 2 or Figure 3.
  - 2. Place an X in the ACTUAL column when the requested measurement is not applicable at the station under test.

TERMII	NAL CONTROL STATION	TOLERANCE	ACTUAL
1.	Circuit A TX (J27)	+ 1/2 db	-13.0 dbm
	Circuit B TX (J29)	<u>+</u> 1 db	-/3,0 dbm
3.	Circuit D TX (J34)	+ 1/2 db	N/A dom
4.	Circuit F TX (J38)	<u>+</u> 1 db	-13-5 dbm
5.	Circuit B TX (J29)	+ 1/2 db	-13-0 dbm
6.	Circuit C TX (J32)	+ 1/2 db	- 5,0 dbm
7.	Circuit C TX (J32)	+ 1/2 db	1. () . dbm
8.	Circuit C TX (J32)	+ 1/2 db	(Y/2) · dbm
9.	3,400 cps Tone Level Circuit A TX (J 27)	13 db + 1/2 db Below Test Tone	-/3 dbm

SHEET 1 OF 2

&RP

# MAIN LINE ORDER WIRE STATION TEST

		STATION		
		TOLERANCE	ACTUAL	
	TER TERMINAL CONTROL STATION GPA ONLY)			
1.	OUT Jack of Drop Amp 6-8, A	<u>+</u> 1/2 db	db m	
2.	OUT Jack of Drop Amp 6-8, B	+ 1/2 db	dbm	
3.	3,400 cps Tone Level Radio West TX (J2 EQUIP)	13 db + 1/2 db Below Test Tone	,_dbm	

	DATE & JUNE 63	
7	TESTER O Mala Con	
	SUPERVISOR Di Gillery	
QU	ALITY ASSURANCE B. E. KORN	-7

#### BIG RALLY II PROJECT

#### DATA SHEET

#### MAIN LINE ORDER WIRE STATION TEST

STATION IR

- NOTE: 1. All EXPECTED levels for each station are given on either Figure 2 or Figure 3.
  - 2. Place an X in the ACTUAL column when the requested measurement is not applicable at the station under test.

TERMI	NAL CONTROL STATIO	4	TOLERANCE	ACTUAL	
1.	Circuit A TX (J27)		·+ 1/2 db	-13	dbm
2.	Circuit B TX (J29)		<u>+</u> 1 db	-13	_dbm
3.	Circuit D TX (J&4)	3	+ 1/2 db	5	_dbm
4.	Circuit F TX (J38)		<u>+</u> 1 db	<u> </u>	_dbm
5.	Circuit B TX (J29)		+ 1/2 db	13	dbm
٠ 6.	Circuit C TX (J32)		+ 1/2 db	- 5	dbm
7.	Circuit C TX (J32)		+ 1/2 db	-5	_dbm
8.	Circuit C TX (J32)		+ 1/2 db	-5	_dbm
9.	3,400 cps Tone Level Circuit A TX (J 27)		13 db + 1/2 db Below Test Tone	- 26	dbm

&RP

SHEET 1 OF 2

# MAIN LINE ORDER WIRE STATION TEST

		STATION_	<del></del>	- 10 %
		TOLERANCE	ACTUAL	
MASTER TERMINAL CONTROL ST (GPA ONLY)	ATION			
1. OUT Jack of Drop Amp 6-	8, A	+ 1/2 db	MA	_db m
2. OUT Jack of Drop Amp 6-	8, B	+ 1/2 db	NA	_dbm
3. 3,400 cps Tone Level Radio West TX (J2 EQUIP)	)	13 db + 1/2 db Below Test Tone	1º B.	_dbm

TESTER P. Leghard

SUPERVISOR R. Washing

QUALITY ASSURANCE R.B. Spear

#### BIG RALLY II PROJECT

#### DATA SHEET

# MAIN LINE ORDER WIRE STATION TEST

STATION IC WEST

- NOTE: 1. All EXPECTED levels for each station are given on either Figure 2 or Figure 3.
  - 2. Place an X in the ACTUAL column when the requested measurement is not applicable at the station under test.

TERMI	NAL CONTROL STATION	TOL	ERANCE	ACTUAL	
1.	Circuit A TX (J27)	-13 <u>+</u> 1	/2 db	-13	_dbm
2.	Circuit B TX (J29)	-13 <u>+</u> 1	db	-14	_dbm
3.	Circuit D TX (J34)	o <u>+</u> 1	/2 db	_0	_dbm
4.	Circuit F TX (J38)	-13.5 <u>+</u> 1	db	-14	_dbm
5.	Circuit B TX (J29)	-13 <u>+</u> 1	1/2 db	-13	_dbm
٠. ٥.	Circuit C TX (J32)	0 <u>+</u> 1	1/2 db	0	_dbm
	Circult C TX (132)	O ±1	1/2 db	0	_dbm
8.	Circuit C TX (J32)	o <u>+</u> 1	1/2 db		dbm
9.	3,400 cps Tone Level Circuit A TX (J 27)		db + 1/2 db low Test Tone	-26	_dbm

SHEET 1 OF 2

# MAIN LINE ORDER WIRE STATION TEST

			STATION_	IC WEST	
			TOLERANCE	ACTUAL	
M		ER TERMINAL CONTROL STATION SPA ONLY)			
	1.	OUT Jack of Drop Amp 6-8, A	+ 1/2 db		_db m
	2.	OUT Jack of Drop Amp 6-8, B	+ 1/2 db		_dbm
	3.	3,400 cps Tone Level Radio West TX (J2 EQUIP)	13 db + 1/2 db Below Test Tone		_dbm

DATE 16 JUNE 63

TESTER

SUPERVISOR 7

QUALITY ASSURANCE

GEETA

#### BIG RALLY II PROJECT

#### DATA SHEET

#### MAIN LINE ORDER WIRE STATION TEST

STATION IC FAST

- NOTE: 1. All EXPECTED levels for each station are given on either Figure 2 or Figure 3.
  - 2. Place an X in the ACTUAL column when the requested measurement is not applicable at the station under test.

TER	M1N	NAL CONTROL STATION		TOLERANCE	ACTUAL	
	1.	Circuit A TX (J27)	-13	+ 1/2 db	-13	dbm
	2.	Circuit D 177 (327)	-13	<u>+</u> 1 db	-14	_dbm
	3.	J36 Circuit D TX (章)	0	+ 1/2 db	0	_dbm
	4.	Circuit F TX (J38)	-13.5	+ 1 db	-14	_dbm
	5.	Circuit B TX (J29)	-13	+ 1/2 db	-13	_dbm
	6.	Circuit C TX (#22)	0	+ 1/2 db	0	_dbm
*	7.	Circuit C TX (# 22)	0	+ 1/2 db	. 0	_dbm
		Circuit C TX (134)	0	+ 1/2 db	0	dbm
	9.	3,400 cps Tone Level Circuit A TX (J 27)		13 db + 1/2 db Below Test Tone	-26	_dbm

SHEET 1 OF 2

# MAIN LINE ORDER WIRE STATION TEST

31A11QIA_10_1AX31_			O MANDE
		TOLERANCE	ACTUAL
_	ER TERMINAL CONTROL STATION GPA ONLY)		
1.	OUT Jack of Drop Amp 6-8, A	+ 1/2 db	db m
2.	OUT Jack of Drop Amp 6-8, B	+ 1/2 db	dbm
3.	3,400 cps Tone Level Radio West TX (J2 EQUIP)	13 db ± 1/2 db Below Test Tone	dbm

DATE 23 TOWE 63

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QUALITY ASSURANCE

GEETA

# FEDERAL ELECTRIC CORPORATION B IG RALLY II PROJECT

#### DATA SHEET

#### MAIN LINE ORDER WIRE STATION TEST

STATION GH. 1.P.

- NOTE: 1. All EXPECTED levels for each station are given on either Figure 2 or Figure 3.
  - 2. Place an X in the ACTUAL column when the requested measurement is not applicable at the station under test.

TERMI	NAL CONTROL STATION	TOLERANCE	ACTUAL
1.	Circuit A TX (J27)	· <u>+</u> 1/2 db	N/19 - 10 dbm
2.	Circuit B TX (J29)	<u>+</u> 1 db	dbm
3.	Circuit D TX ( )	+ 1/2 db	dbm
4.	Circuit F TX (J38)	<u>+</u> 1 db	dbm
5.	Circuit B TX (J29)	+ 1/2 db	dbm
6.	Circuit C TX (452)	+ 1/2 db	dbm
7.	エー34 Circuit C TX (超数)	+ 1/2 db	dbm
8.	Circuit C TX (#82)	+ 1/2 db	dbm
9.	3,400 cps Tone Level Circuit A TX (J 27)	13 db + 1/2 db Below Test Tone	dbm

## MAIN LINE ORDER WIRE STATION TEST

STATION GIK-1.P.

		TOLERANCE	ACTUAL	
	ER TERMINAL CONTROL STATION GPA ONLY)			
1.	OUT Jack of Drop Amp 6-8, A	+ 1/2 db		db m
2.	OUT Jack of Drop Amp 6-8, B	+ 1/2 db		dbm
3.	3,400 cps Tone Level Radio West TX (J2 EQUIP)	13 db + 1/2 db Below Test Tone		dbm

TESTER SUPERVISOR Lucid Suite

QUALITY ASSURANCE 15 %

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#### FEDERAL ELECTRIC CORPORATION

#### B IG RALLY II PROJECT

#### DATA SHEET

#### MAIN LINE ORDER WIRE STATION TEST

STATION GH-GA

- NOTE: 1. All EXPECTED levels for each station are given on either Figure 2 or Figure 3.
  - 2. Place an X in the ACTUAL column when the requested measurement is not applicable at the station under test.

TERMI	NAL CONTROL STATION	TOLERANCE	ACTUAL
1.	Circuit A TX (J27)	·+ 1/2 db	-13.1 dbm
2.	Circuit B TX (J29)	<u>+</u> 1 db	-13./ dbm
3.	Circuit D TX ( )	+ 1/2 db	- 5 dbm
4.	Circuit F TX (J38)	+ 1 db	$\chi$ dbm
5.	Circuit B TX (J29)	+ 1/2 db	- 13 dbm
. 6.	Circuit C TX (302)	+ 1/2 db	- 5 dbm
7.	Circuit C TX (共変)	+ 1/2 db	- 1/. 3 dbm
8.	Circuit C TX (±52)	+ 1/2 db	- 4/.9 dbm
9.	3,400 cps Tone Level Circuit A TX (J 27)	13 db + 1/2 db Below Test Tone	-26 dbm

#### MAIN LINE ORDER WIRE STATION TEST

STATION G. H. G.A.

		TOLERANCE	ACTUAL
	ER TERMINAL CONTROL STATION GPA ONLY)	1 Ossavivec	
1.	OUT Jack of Drop Amp 6-8, A	+ 1/2 db	db m
2.	OUT Jack of Drop Amp 6-8, B	+ 1/2 db	dbm
3.	3,400 cps Tone Level Radio West TX (J2 EQUIP)	13 db + 1/2 db Below Test Tone	dbm

SUPERVISOR FASSELL SCATE

QUALITY ASSURANCE B. G. BOYS

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# B IG RALLY II PROJECT

#### DATA SHEET

#### MAIN LINE ORDER WIRE STATION TEST

STATION	GA	

- NOTE: 1. All EXPECTED levels for each station are given on either Figure 2 or Figure 3.
  - 2. Place an X in the ACTUAL column when the requested measurement is not applicable at the station under test.

TERMI	NAL CONTROL STATION	TOLERANCE	ACTUAL	
1.	Circuit A TX (J27)	+ 1/2 db	-13	dbm
2.	Circuit B TX (J29)	<u>+</u> 1 db	13	dbm
3.	丁-3L Circuit D TX (起語)	<u>+</u> 1/2 db	-5	_dbm
4.	Circuit F TX (J38)	<u>+</u> 1 db	XXX	_dbm
5.	Circuit B TX (J29)	<u>+</u> 1/2 db	-13	_dbm
٠.	Circuit C TX (452)	+ 1/2 db	-5	_dbm
7.	Circuit C TX (#92)	+ 1/2 db	<b>-</b> 5	_dbm
8.	Circuit C TX (402)	+ 1/2 db	<b>-</b> 5	dbm
9.	3,400 cps Tone Level Circuit A TX (J 27)	13 db + 1/2 db Below Test Tone	-26	_dbm

## MAIN LINE ORDER WIRE STATION TEST

	STATION GA	
	TOLERANCE	ACTUAL
MASTER TERMINAL CONTROL STATION (GPA ONLY)		
1. OUT Jack of Drop Amp 6-8, A	+ 1/2 db	XXXXXX db m
2. OUT Jack of Drop Amp 6-8, B	+ 1/2 db	XXXXXX dbm
3. 3,400 cps Tone Level Radio West TX (J2 EQUIP)	13 db + 1/2 db Below Test Tone	XXXXXXXX dpw

DATE 10 July 1963

TESTER July.

SUPERVISOR

QUALITY ASSURANCE

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Robert 10 Legle

#### BIG RALLY II PROJECT

#### DATA SHEET '

#### MAIN LINE ORDER WIRE STATION TEST

STATION	GPA	

- NOTE: 1. All EXPECTED levels for each station are given on either Figure 2 or Figure 3.
  - 2. Place an X in the ACTUAL column when the requested measurement is not applicable at the station under test.

'ERMI	NAL CONTROL STATION	TOLERANCE	CTUAL
1.	Circuit A TX (J27)	+ 1/2 db	N/A dbm
2.		<u>+</u> 1 db	dbm
3.	J-36 Circuit D TX (超速)	# 1/2 db	dbm
4.	Circuit F TX (J38)	<u>+</u> 1 db	dbm
5.		+ 1/2 db	dbm
6.		+ 1/2 db	dbm
7.		<u>+</u> 1/2 db	dbm
8.	J-34 Circuit C TX (192)	+ 1/2 db	dbm
9.	3,400 cps Tone Level Circuit A TX (J 27)	13 db + 1/2 db Below Test Tone	dbm'

SHEET 1 OF 2

# MAIN LINE ORDER WIRE STATION TEST

	STATION_G	PA
	TOLERANCE	ACTUAL
MASTER TERMINAL CONTROL STATION (GPA ONLY)		
1. OUT Jack of Drop Amp 6-8, A	+ 1/2 db	4.5db m
2. OUT Jack of Drop Amp 6-8, B	+ 1/2 db	13.5 dbm
3. 3,400 cps Tone Level Radio West TX (J2 EQUIP)	13 db + 1/2 db Below Test Tone	33 . dbm

DATE 4 July 63

TESTER

SUPERVISOR 1- Wiemer

QUALITY ASSURANCE

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# FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

#### DATA SHEET

# MAIN LINE ORDER WIRE LINK TEST

STATION T.D.	
--------------	--

NOTES:

- 1. All EXPECTED levels for each station are given on either Figure 2 or Figure 3.
- 2. Place an X in the ACTUAL column when the requested measurement is not applicable at the station under test.

LINK CIRCUIT	LEVELS	p.	TOLERANCE	ACTUAL	
1. Radio Ed	ast RX	ξ.	<u>+</u> 1 db	-iD	_dbm
2. Radio W	est RX		<u>+</u> 1 db	N/A.	_dbm
3. EXOW			+1 db	NA	_dbm

#### OVER-RIDE OPERATION

1.	Transmit	Circuit

PERRATICE INTERMITTENT)

Initial if Okay

- 2. Receive Circuit
- 3. Transmit Circuit (Master Term. Cont. GPA)
- 4. Receive Circuit ((Master Term. Cont. GPA)

DATE 17 SILVE	1963
TESTER K 1/0 /00	1/
SUPERVISOR 12.6.66	117
QUALITY ASSURANCE	30-2-0

#### BIG RALLY II PROJECT

#### DATA SHEET

#### MAIN LINE ORDER WIRE LINK TEST

	IR-E	
STATION_	IR-W	

ACTUAL

NOTES:

- 1. All EXPECTED levels for each station are given on either Figure 2 or Figure 3.
- 2. Place an X in the ACTUAL column when the requested measurement is not applicable at the station under test.

TOLERANCE

LIT	NK (	CIRCUIT LEVELS				
	1.	Radio East RX	<u>+</u> 1 db		±o	dbm
	2.	Radio West RX	+ 1 db		-0	_dbm
	3.	EXOW	<u>+</u> 1 db		× ×	_dbm
01		-RIDE OPERATION  Transmit Circuit	n	Initial if Oka	v 845	
		Receive Circuit		initial it Oka	RBS_	
	3.	Transmit Circuit (Master Term. Cont GP	'A)		X	1/4
	4.	Receive Circuit ((Master Term. Cont G	PA)		X	

NOTE! MEnsudenent MADE AT

RX KEY TEL SET DACK.

DATE 16 JUNE, 1963

SUPERVISOR R. W. Lie

QUALITY ASSURANCE RB S REAL

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# FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

#### DATA SHEET

# MAIN LINE ORDER WIRE LINK TEST

STATION	IC	

- NOTES:
- All EXPECTED levels for each station are given on either Figure 2 or Figure 3.
- Place an X in the ACTUAL column when the requested measurement is not applicable at the station under test.

Li	NK	CIRCUIT LEVELS		TOLERANCE	ACTUAL	
	٦.	Radio East RX	-10 dt	om + 1 db	<u>-9</u>	_dbm
	2.	Radio West RX	-10 db	m + 1 db	-9.5	dbm
	3.	EXOW		<u>+</u> 1 db	•	_dbm

#### OVER-RIDE OPERATION

1.	Transmit Circuit	Unsatisfactory ( ) Initial if Okay	
2	Receive Circuit	Unsatisfactory	

- Transmit Circuit (Master Term. Cont. GPA)
- Receive Circuit ((Master Term. Cont. GPA)

. ]	
	DATE 27/2016 63
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i.	SUPERVISOR JA Salienda
QUA	ALITY ASSURANCE Will R. Ha

GEETA Corbert of Legle 3-19

SHEET 1 OF 1

#### BIG RALLY II PROJECT

#### DATA SHEET

#### MAIN LINE ORDER WIRE LINK TEST

STATION GK. 1. P

NOTES:

- 1. All EXPECTED levels for each station are given on either Figure 2 or Figure 3.
- 2. Place an X in the ACTUAL column when the requested measurement is not applicable at the station under test.

LINK	CIRCUIT LEVELS	TOLERANCE	ACTUAL
1.	Radio East RX	<u>+</u> 1 db	N/A dbm
2.	Radio West RX	<u>+</u> 1 db	-9.8 dbm
3.	EXOW	+1 db	. M/13 dbm
OVER	-RIDE OPERATION		. 0 0 12

1.	Transmit Circuit		Initial if O	kay 15-6
2.	Receive Circuit			
3.	Transmit Circuit (Mas	ster Term. Cont GPA)		

4. Receive Circuit ((Master Term. Cont. - GPA)

	DATE 27 JUNE 63
	TESTER Eliter
14	SUPERVISOR Secretar
QUAL	ITY ASSURANCE B. E. Bear
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SHEET 1 OF 1

3-20

## BIG RALLY II PROJECT

#### DATA SHEET

#### MAIN LINE ORDER WIRE LINK TEST

STATION GK-GA-

NOTES:

- 1. All EXPECTED levels for each station are given on either Figure 2 or Figure 3.
- 2. Place an X in the ACTUAL column when the requested measurement is not applicable at the station under test.

LINK	CIRCUIT LEVELS	. Р	TOLERANCE	ACTUAL	
1.	Radio East RX	, i	<u>+</u> 1 db	10.2	dbm
2.	Radio West RX		<u>+</u> 1 db	<u> </u>	_dbm
3.	EXOW		±1 db	<u> </u>	dbm
OVER-	-RIDE OPERATION		0		
1.	Transmit Circuit		Initial if	Okay WNSAT.	
2.	Receive Circuit			UNSA	<u> </u>
3.	Transmit Circuit (Master T	erm. Cont GPA)		NA	
4.	Receive Circuit ((Master T	erm. Cont GPA	)	N/A.	1

TESTER POSTER

SUPERVISORA

QUALITY ASSURANCE

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STATION GA

# FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

#### DATA SHEET

## MAIN LINE ORDER WIRE LINK TEST

NOTES:

Figure 3.

		TOLERANCE	ACTUAL
LINK	CIRCUIT LEVELS		
1.	Radio East RX	+ 1 db	-13.2 dbm
2.	Radio West RX		.0 <u>-10.3 -11</u> dbm
3.	EXOW	<u>+</u> 1 db	N/A dbm
OVER	-RIDE OPERATION		
1.	Transmit Circuit	Initial if	Okay INTERMITTEN T
2.	Receive Circuit	i e	INTERMITTENT
3.	Transmit Circuit (Master Term. Cont GPA)		XXXXX
4.	Receive Circuit ((Master Term. Cont GPA	)	XXXXX
	그 마스트 그 그 그 사람이 많아 얼굴하다면 얼굴하다. 하나 나는	•	

All EXPECTED levels for each station are given on either Figure 2 or

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QUALITY ASSURANCE

TESTER

SUPERVISOR

DATE 14 Sul

SHEET 1 OF 1

3-22

STATION GPA

# FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

## DATA SHEET

## MAIN LINE ORDER WIRE LINK TEST

NOTE	Figure 3.	are given on either rigur	e Z or
	2. Place an X in the ACTUAL column was applicable at the station under test.	hen the requested measure	ment is not
LINK	CIRCUIT LEVELS	TOLERANCE	ACTUAL
1.	Radio East RX	<u>+</u> 1 db	_20 dbm
2.	Radio West RX	+ 1 db	x dbm
3.	EXOW	+1 db	X dpw
OVER-	-RIDE OPERATION		
1.	Transmit Circuit	Initial if Okay	See note
2.	Receive Circuit		х
3.	Transmit Circuit (Master Term. Cont GPA)		See note
4.	Receive Circuit ((Master Term. Cont GPA)		x

Note: Intermittent and unstable

DATE 14 July 63

TESTER Junear

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QUALITY ASSURANCE

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SHEET 1 OF 1

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# BIG RAILY II PROJECT

# DATA SHEET

# STATION GPAGGA)GAB

STATI	ON TESTS	EXPECTED	ACTUAL - 15
1.	Signal Transmit Level, Jack Pos. 24	(-15 ± 0.5 dbm) see no	te -14 dbm
2.	Signal Transmit Level; Jack Pos.26	(-15.± 0.5 dbm) -/-	514_ d'om
3.	Pad Loss, GAB	(-20 ± 0.5 dom)	21_ dom
. 4.	Pad Loss, GTA	(-20 ± 0.5 dom)	N/A dlam
5.	Pad Loss, GIM	(-20 ± 0.5 dbm)	N/A dom
6.	Amplifier A Gain Adjust, Pos. 12-6	(-5 ± 0.5 dbm)	_5 dlm
. 7.	Amplifier B Gain Adjust, Pos. 12.6	(-5 ± 0.5 dbm)	_5_ diem
8.	Amplifier A Gain Adjust, Pos. 12-7	(-5 ± 0.5 dbm)	_5_dlan
9.	Order Wire Receive, GAB	(Lamp 1 ON & Buzzer)	ok-MC Int
10.	Order Wire Receive, GTA	(Lamp 2 ON & Buzzer)	N/A Int
:n.	Order Wire Receive, GIM	(Lamp 3 ON & Buzzer)	N/A Int
12.	Order Wire Receive, GPA(GHO)	(Lamp 4 ON & Buzzer) .	N/A Int
1	TESTS  Receive Level	EXPECTED	ACTUAL
	GPA to GAB	(-5 ± 1 dbm)	_4.1 dbm'
• ;	GPA to GTA	(-5 \frac{7}{2} 1 \dom\)	N/A diam
	GPA to GIM	$(-5 \frac{7}{10} 1 \text{ abm})$	N/A
	GPA to GHO	(-5 <u>+</u> 1 dbm)	N/A com
Note:	not within specifications.		

LINK	TESTS		EXPECTED	ACTUAL	
2.	Signalling				
	GPA to GAB		(Lamp ON & Buzzer at GAB)	ok-MC	_Įnt
	GPA to GTA	7	(Lamp ON & Buzzer at GTA)	N/A	_Int
	GPA to GIM		(Lamp ON & Buzzer at GIM)	N/A	_Int
	GPA to GHO		(Lamp ON & Buzzer, CHO Shelter)	N/A	Int.
			(Buzzer, GHO LOS Bldg.)	N/A	Int

	DATE	20 July 63	
	TESTER	Whe I Gray	
	SUPERVISOR	1 Nerisens	
QUALITY	ASSURANCE_	lle en:	
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Sheet 2 o. 2

#### BIG RALLY II PROJECT

## DATA SHEET

### STATION GAB (GPA AND (-EL.) ORDER WIRE

STATI	ON TESTS	EXPECTED	ACTUAL	
1.	Signal Transmit Level	(-15 ± 0.5 dom)	-35.0	dom
. 2.	Bridge Transmit Loss, W Mod	(-20 <u>+</u> 0.5 dom)	-20.0	_dom
3.	Amplifier A Gain Adjust, Pos. 9-3 TCC-3 Not modified to accept -16 dbm i	(-16 ± 0.5 dom)	-4.0	dlom
	Pad Loss	(0 ± 0.5 dbm)	N/A	_ದೆರಿಣ
5.	Bridge Receive Loss, Spur Mod	(-20 ± 0.5 dbm)	-20.0	dòm
6.	Amplifier A Gain Adjust, Fos. 9-4-	(-5 ± 0.5 dbm)	-5.0	_ස්වක
7.	Bridge Transmit Loss, E Mod	(-20 + 0.5 dbm)	20.0	iom.
8.	Amplifier B Gain Adjust, Pos.9-3	(0 ± 0.5 dom)	0	_dbm
9:	Order Wire Receive	(Lamp ON & Buzzer)	WJS	_Int
LINK	TESTS .	EXPECTED	ACTUAL	
1.	Receive Level			
	GAB to GEL	(-5 ± 1 dbm)	-3.2	
	GAB to GPA	(-5 ± 1 dbm)	-5.0 **XX	dim
2.	Signalling			
•	CAB to GEL	(Lamp ON & Buzzer at GEL)	WJS	_Int
	GAB to GPA	(Lamp 1 on & Buzzer at GPA)	WJS	Er a
		7007 30 HHV 3042	i ing	
		TESTER Way Change for		
	SUPE	RVISOZ Sienka Sh	ypina	Ki

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# BIG RALLY II PROJECT

#### DATA SHEET

STATIONS ICC(IC), (GEL(CAB, TCO(TKG) AND TES(TKG)

STATE	ON TESTS	EXPECTED	ACTUAL	
1.	Signal Transmit Level	(-30 ± 0.5 dbm)	<b>-3</b> 0	_dom
2.	Bridge Transmit Loss, W Mod	(-15 ± 0.5 dbm)	-16	_d'om
3.	Amplifier A Gain Adjust, Pos.	.9-3 ( 3 ± 0.5 dbm)	_4_	_abm
4.	Bridge Receive Loss, Spur Moo	d. $(-16 \pm 0.5 \text{ dbm})$	-16	_dbm
5.	Amplifier A Gain Adjust, Pos.	.9-4 (-5 ± 0.5 dom)	5	_dbm
6.	Bridge Transmit Loss, E Mod	$(-16 \pm 0.5 \text{ dbm})$	16	_dbm
7.	Amplifier B Gain Adjust, Pos.	.9-3 (-5 ± 0.5 dom)	<b>-</b> 5	_dbm
8.	Order Wire Receive	(Lemp ON & Buzzer)	MC	_ Int
LINK	TESTS	FXPECTED	ACTUAL	
1.	Receive Level			
	TCO to TKG	(-5: + 1 dom)		dbm
	TES to TKG	(-5: ± 1 dbm)		dbm
	ICC to IC Shelter	- (-5: ± 1 dbm)		a`om
	IGC to IC Van	(-5 ± 1 dbm)		dòm
en i	GEL to GAB	(-1; + 1 abm)	€ -3.2	abm

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			1
LINK	TESTS	EXPECTED ACTUAL	
2.	Signalling		
	TCO to TKG	(Lamp 1 ON & Buzzer at TKG)	_Int
	TES to TKG	(Lamp 4 ON & Buzzer at TKG)	_Int
	IGC to IC Shelter	(Lamp ON & Buzzer, IC Shelter	_Int
	IGC to IC Van	(Lamp ON & Buzzer, IC Van)	Int
	GEL to GAB	(Lamp ON & Buzzer at GAB)	_Int

QUALITY ASSURANCE M. Cr. 1

Sheet 2 of 2

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## BIG RALLY II PROJECT

## DATA SHEET

# TECHNICAL CONTROL EQUIPMENT

STAT	TION (Check one) ID	, IC	, GPA-1	n-mid-micron across	
			Expected	Actual	
1.	Bridge Loss	(Step E)	-8 + 1 dbm	-7,9 dbm	
		(Step G)	-8 ± 1 dbm	-7.3 dbm	
		(Step J)	-8 + 1 dbm	-7,4/ dbm	
		(Step O)	-8 ± 1 dbm	-7.7 dbm	
2.	Terminating Set Insertion	Loss	-5 + 0.5 dbm	-4.8 dbm	
3.	Pad Loss	(Step E)	-16 dbm ±0.5 dbm	-16 dbm	
		(Step K)	-16 dbm+0.5 dbm		
4.	Amplifier Gain	(Step E)	-3 dbm + 0.5 dbm	3d'sm	
		(Step H)	+7dbm +0.5 dbm	47 db m	
		(Step M)	+7 dbm+0.5 dbm	+7 dbm	
	ı	(Step R)	+7dbm+ 0.5 dbm	+7 Dom	2
5.	Transmit Signal Level		0 ± 0.5 dbm	-0.3 dbm	
ó.	Tone Oscillator Level		-12 dbm +0.5dbm	AT Equipment offm	1 1:
7.	Dialing Test			K.N. Initia	ls
			DATE &	June 63	
			TESTER /	Nefe	

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QUALITY ASSURANCE 16 8.

# FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

## DATA SHEET

# TECHNICAL CONTROL EQUIPMENT

STAT	ION (Check one) ID	_, IC	, GPA-1 X		
			Expected	Actual	
1.	Bridge Loss	(Step E)	-8 + 1 dbm	-7.5	dbm
		(Step G)	-8 + 1 dbm	-7.5	dbm
		(Step J)	-8 + 1 dbm	-7.5	dbm
		(Step O)	-8 + 1 dbm	-7.5	dbm
2.	Terminating Set Insertion Los	s	-5 + 0.5 dbm	-5	dbm
3.	Pad Loss	(Step E) -20 See n	-d dbm +0.5 dbm	-20	dbm
	•	(Step K)	-16 dbm±0.5 dbm	-16	dbm
4.	Amplifier Gain	(Step E)	-3 dbm ± 0.5 dbm	3	dbm
		(Step H)	+7dbm +0.5 dbm	+7	db m
		(Step M)	=7 dbm+0.5 dbm	+7	_dbm
		(Step R)	-7clbm+ 0.5 dbm	+7	_ Dbm
5.	Transmit Signal Level		0 ± 0.5 dbm	-X -C	dbm /
ó.	Tone Oscillator Level See	note -18	302 dbm +0.5dbm	-18	_dbm
7.	Dialing Test	* * * *		MC	Initials
			DATE	17 JULY	63
Note: Ch	anges made per instru	ctions of	TESTER ///	X XP	1
	. W. Shoemaker, I.S.E.		SUPERVISOR	Weiner	nel
1	GEETA I Permit	QUAL	ITY ASSURANCE	W. Col	/
	/			.5	-30

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# BIG RALLY II PROJECT

# DAT A SHEET

# TECHNICAL CONTROL EQUIPMENT

STAT	IION GPA-2 on	ly.		Expected	Actual	
1.	Bridge Loss		(Step F)	-8 + 1 dbm	8	dbm
			(Step J)	-8 + 1 dbm	-8	_dbm
		ŗ.	(Step N)	-8 + 1 dbm	-8	dbr
			(Step R)	-8 + 1 dbm	-8	dbr
2.	Pad Loss		(Step D)	- 16 dbm + 0.5 dbm	16	dbr
			(Step F)	-16db m + 0.5 dbm	-16	_dbm
			(Step H)	-16dbm +0.5 dbm	-16	_dbm
			(Step K)	-16 dbm+ 0.5 dbm	-16	dbm

DATE 17 July 63
TESTER Man & Stray
SUPERVISOR 1. Wennered
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GEETA Stelant

#### BIG RALLY II PROJECT

## DATA SHEET

# TECHNICAL CONTROL EQUIPMENT

STA	TION (Check one) TIC	, GAB	-1 XXXXX .		
	et see the see the				
			Expected	Actual	
1.	Bridge Loss	(Step E)	-8 + 1 dbm	-8.0	_dbm
		(Step H)	-8 + 1 dbm	-8.0	dbm
2.	Pod-Loss E MOD LOSS		-16 ± 0.5 dbm	-16.0	dbm
3.	Amplifier Gain	(Step E)	+7 +0.5 dbm	<u> </u>	dbm
		(Step G)	-3 ± 0.5 dbm	-3.0	dbm
		(Step K)	+7 -五+0.5 dbm	47.0	dbm
		(Step M)	-3 + 0.5 dbm	-3.0	dbm .
			-26		
4.	Tone Oscillator Level	(Step D)	-18-+ 0.5 dbm	-26.0	dbm
		(Step G)	-26 	-26.0	dbm
5.	Dialing Operation			WJS	Initials

DATE 16 JULY 1963

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SUPERVISOR T

QUALITY ASSURANCE ()

# BIG RALLY II PROJECT

# DATA SHEET

TECHNICAL CONTROL	EQUIPMENT	ľ
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1					
STAT	TON (Check one) IGC	, GEL_	X , TI	_, GTA	
	GIM	, GPE_	, GAG	•	
			Expected	Actual	
1.	Pad Loss See note	<del>-</del> 5	-10 + 0.5 dbm	5	dbm
2.	Receive Level		-16 ± 0.5 dbm	N/A	dbm
3.	Transmit Signal Level	-4	-14 ± 0.5 dbm	4.	dbm
4.	Tone Oscillator Level	-16	-26+ 0.5 dbm	16	dbm
5.	Dialing Operation			N/A	Initials
Not	changes in test production of the changes in test production. The control of the changes in test production of the changes in the changes in test production.	edure	made by	0/	1963 Levet
		QU	SUPERVISOR	Ell. Co	winds
			GEEIA	al Rf	elist -

# FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

# DATA SHEET

# TECHNICAL CONTROL LINK, TEST

1.	Circuit (Ch	neck one) A	, B XXXX	, c			· · ·		
2.	Transmit St	ation (Check) one	: IAV,	, ID		, IC_			and the same
		GHO GA		- 1		, GEL_			
		GTA		e	GPA		GFE		
3.	Receive Sta	ations (Initial for	stations contacte	d)					
	Circuit:	A	1 B		C		j_ D		
	Code:	Station 52	Station	52	Station	52	Station	52	
	IAV_	/	GEL WJS		GAB		TIC		
	ID_		GAB,		GPA	- /	TID		
	IC_		GPA WJS ,		GTA		1		
	IGC				GIM		_		
		LING NOT OPERAT DIALING CODES.	THE CORRECTLY		GHO_		/		
					GPE	_'			
		9			IGAG		and the second		
					DATE_2	9 July	1963	.9	
					TESTER /	In Jo	chrene	res_	د رر
				SUPE	RVISOR	rank	- Das-No	22000	der

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# BIG RALLY II PROJECT

## DATA SHEET

# TECHNICAL CONTROL LINK TEST

1.	Circuit (Cl	neck one) A	, BXX	<u> </u>		, <u>D</u>		•
2.	Transmit St	ration (Check) one	: IAV	, ID		_, IC		,
		IGC , GA	, GAG, GAG			, GEL_X	,	
		GHO				, G		
		GTA	_,TID	, TI	c			
3.	Receive St	ations (Initial for s	tations con	tacted)				
	Circuit:	<b>A</b>		В	c		D D	
	Code:	Station 52	Statio	n 52	Station	52	Station	52
	IAV		GEL	/	GAB		TIE	
	ID_		GAB_GR*	<u> </u>	GPA_		TID	/
	IC_		GPA GB	12	GTA			
	IGC				GIM_		-	
					GHO_		-	
	NOTE.	COULD HOT RE			GPE		-	
	-	Telephone			GAG_		_	
	<b>,</b>	function is	not c	mplete	DATE	55-16	1. 196	v.
	*	function is	el sit	Enavir	TESTER	onyo.	B Bac	e T
				SUPE	RVISOR CA	- Kim 9 4	terrich	
				JALITY ASS		1. 150	mehrs	3-3

BR 11/81

## BIG RALLY II PROJECT

## DATA SHEET

					STATION	GA LOS		
	Tran	nsmission Path:	From Station	GA	to STATION	GPA		
1.	TRA	NSMITTER "A"			EXPECTED		ACT	JAL .
	Α.	TX Klystron Be	eam Current		35-85MA (1.5-3	3.6)	2.7	MA
	В.	Power Output			Minimum +28 d	bm	+28	dbm
	c.	Transmitter RF	Frequency					
		l) Assigned O	perating Freq.				8.155	_GC
		2) Measured F	req. (AFC ON)		+0.005% of Assigned Freq.		8.154	GC
			IN, MI Reading (D ne Control 5 Div CV		Minimum 9 35 SECONDS 1	TIME	10	-
		-	IN, MI Reading (De ine Control 5 DIV C		Minimum 9 32 SECONDS 1	IME	10	
2.	TRA	NSMITTER "B"						1
	Α.	TX Klystron Be	eam Current		35-85MA (1.5-3	3.6)	3.0	MA
	Ε.	Power Output			Minimum +28 d	bm	+28.5	dbm

BR 11/81

#### BIG RALLY II PROJECT

#### DATA SHEET

#### MW-503A LOS STATION TEST

c.	Transmitter RF Frequency	EXPECTED	ACTUAL	
	l) Assigned Operating Freq.		8.155	GC
	2) Measured Freq. (AFC ON)	+0.005% of Assigned Freq.	8.15376	GC
	3) AFC PULL IN, MI Reading (Detune Repeller-Fine Control 5 DIV CW)	Minimum 9	INOPERATIVE	c —
	4) AFC PULL-IN, MI Reading (Detune Repeller-Fine Control 5 DIV. CCW)	Minimum 9	INOPERATIVE	<u> </u>

TRANSMITTER STABLIZES APPROXIMATELY 5 MCS OFF ASSIGNED FREQUENCY

DATE 6 Suly 1963

TESTER Joel N. Thi

SUPERVISOR

QUALITY ASSURANCE

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Sheet 2 of 2

BR 11/81 '

## BIG RALLY II PROJECT

## DATA SHEET

			STATION GPA
	Tran	nsmission Path: From Station GPA	to STATION GA
I.	TRA	NSMITTER "A"	EXPECTED ACTUAL
	Α.	TX Klystron Beam Current	35-85MA (1.5-3.6) 2.4 MA
	В.	Power Output	Minimum +28 dbm 29.6 dbm
	С.	Transmitter RF Frequency	
		1) Assigned Operating Freq.	<u>8345</u> GC
		2) Measured Freq. (AFC ON)	+0.005% of 8344.200 GC Assigned Freq.
		'3) ACF PULL-IN, MI Reading (Detune Repeller Fine Control 5 Div CW) Mechanical klystron freq. adju	Minimum 9 1:45 secs. 10
		4) AFC PULL-IN, MI Reading (Detune Repoller-Fine Control 5 DIV CCW) Mechanical klystron freq. adju	Minimum 9 :45 secs. 10
2.	TRA	NSMITTER "B"	
	Α.	TX Klystron Beam Current	35-85MA (1.5-3.6) 3.0 MA
	В.	Power Output	Minimum +28 dbm +28.9 dbm

BR 11/81

#### BIG RALLY II PROJECT

DATA SHEET

c.	Transmitter RF Frequency	EXPECTED		ACTUAL
	1) Assigned Operating Freq.			8345 G
	2) Measured Freq. (AFC ON)	+0.005% of Assigned Free		8346,000 G
	3) AFC PULL IN, MI Reading (Detune Repeller-Fine Control 5 DIV CW) Mechanical klystron freq. adju	Minimum 9	:57 secs.	10
	4) AFC PULL-IN, MI Reading (Detune Repeller-Fine Control 5 DIV. CCW) Mechanical klystron freq. adju	Minimum 9	:27 secs.	10

	DATE 3 July 1963
	TESTER Vincent Prinn
	SUPERVISOR 1. Wennigon
	QUALITY ASSURANCE Marie Con of
-	GEETA Robert & Scyler

BR 11/81

## BIG RALLY II PROJECT

# DATA SHEET

## MW-503A LOS STATION TEST

		STATIONGPA
	Transmission Path: From Station GPA	to STATION GAB
1.	TRANSMITTER "A"	EXPECTED ACTUAL
	A. TX Klystron Beam Current	35-85MA (1.5-3.6) 2.7 MA
	B. Power Output	Minimum +28 dbm J dbm
	C. Transmitter RF Frequency	
	1) Assigned Operating Freq.	8265 GC
	2) Measured Freq. (AFC ON)	+0.005% of see note 8266.84 GC Assigned Freq.
	'3) ACF PULL-IN, MI Reading (Detune Repeller-Fine Control 5 Div CW)	Minimum 9 see note 9 in 27 secs
	<ol> <li>AFC PULL-IN, MI Reading (Detune Repeller-Fine Control 5 DIV CCW)</li> </ol>	Minimum 9 see note 9 in 70 secs
2.	TRANSMITTER "B"	
	A. TX Klystron Beam Current	35-85MA (1.5-3.6)MA
	B. Power Output	Minimum +28 dbm 29.6 dbm

Notes: do not meet specs.

BR 11/81

#### BIG RALLY II PROJECT

#### DATA SHEET

#### MW-503A LOS STATION TEST

C.	Tro	ansmitter RF Frequency	EXPECTED		ACTUAL
	1)	Assigned Operating Freq.			8265 GC
	2)	Measured Freq. (AFC ON)	±0.005% of Assigned Freq.		8265,28GC
	3)	AFC PULL IN, MI Reading (Detune Repeller-Fine Control 5 DIV CW)	Minimum 9	S	in 9 secs.
	4)	AFC PULL-IN, MI Reading (Detune	Minimum 9	see note	9 <u>in 55 s</u> ecs

note: do not meet specs.

TESTER JULY 63

TESTER JULY 63

SUPERVISOR MANIPULA

QUALITY ASSURANCE M. Drift

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BR 11/81

## BIG RALLY II PROJECT

#### DATA SHEET

		station	GAB
	Transmission Path: From Station GAB	to STATION GPA	
1.	TRANSMITTER "A"	EXPECTED	ACTUAL
	A. TX Klystron Beam Current	35-85MA (1.5-3.6)	2.7
	B. Power Output	Minimum +28 dbm	<u></u> \$28 dbm
	C. Transmitter RF Frequency		
	i) Assigned Operating Freq.		8.075 GC
	2) Measured Freq. (AFC ON)	+0.005% of Assigned Freq.	8.0762 GC see revised sheet.
	'3) ACF PULL-IN, MI Reading (Detune Repeller-Fine Control 5 Div CW)		9
(*)	<ol> <li>AFC PULL-IN, MI Reading (Detune Repeller-Fine Control 5 DIV CCW)</li> </ol>		9
2.	TRANSMITTER "B"		
	A. TX Klystron Beam Current	35-85MA (1.5-3.6)	2.9 MA
	B. Power Output	Minimum +28 dbm	. ≠ 29.1 dbm

ER/81 REVISED DATA REF.: DD/250, item 1W

#### STATION GAB

TRANSMISSION PATH FROM STATION GAB TO STATION GPA

C. TRANSMITTER R.F. FREQUENCY.

1) ASSIGNED FREQUENCY

8.075GC

2) MEASURED FREQ. (AFC ON).

8.07512GC

NOTE: REFERENCE CAVITY AT THIS STATION WAS TUNED PRIOR TO PERFORMING THIS TEST.

Date 30 January 1964

Q.A./ I.S.E.I.

AFCS Site Chief

BR 11/81

# BIG RALLY II PROJECT

## DATA SHEET

c.	Tro	ansmitter RF Frequency EXPECTED	ACTUAL		
	I)	Assigned Operating Freq.	8.075	_GC	
ţ	2)	Measured Freq. (AFC ON) ±0.005% of Assigned Freq.	8.07528	_GC	
	3)	AFC PULL IN, MI Reading (Detune Minimum 9 Repeller-Fine Control 5 DIV CW) 12 seconds time required	9	_	
	4)	AFC PULL-IN, MI Reading (Detune Minimum 9  Repeller-Fine Control 5 DIV, CCW29 seconds time required	9	_	

DATE 17 JULY 1963
TESTER While Chrinaker
SUPERVISOR Frank J Shorpinski
QUALITY ASSURANCE Stone Confoll
GEEIA Robert of Legler

## BIG RALLY II PROJECT

BR 11 /82

## DATA SHEET

			STATION GA LOS	
	Tra	nsmitter Path: From Station GA	to Station GPA	
ı.	REC	CEIVER A	EXPECTED	ACTUAL
	Α.	RX Klystron Beam Current	15-32 MA	26 MA
	В.	IF Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	-50 (Pegged)
	c.	IF AMP Noise Level	-17 <u>+</u> 3 db	-17.5 db
	D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-86.6 dbm
	Ε.	IF AMP Deviation Sensitivity	+3 to -3 db	-1.6 db
2.	REC	CEIVER B		
	Α.	RX Klystron Beam Current	15-32 MA	MA
	В.	IF Limiter current (Meter M201 Reading)	(-19 will not meet requirement) . MAX -20	-50 (Pegged)
	C.	IF AMP Noise Level	-17 + 3 db	-15.5 db
	D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	_88.6 dbm
	E.	IF AMP Deviation Sensitivity	+3 to -3 db	-1.6 db
			DATE 7 Ju	Ly 1963
			TESTER JULIT	and a
			SUPERVISOR Jan	Maryon
			QUALITY ASSURANCE	Ensell 4-

#### BIG RALLY II PROJECT

BR 11. 182

#### DATA SHEET

#### MW-503A LOS STATION TEST

					STATION	GPA	<u> </u>	
	Tra	nsmitter Path:	From Station	GPA	to Station	GA		
1.	REC	CEIVER A			EXPECTED .		ACTUA	.L
	Α.	RX Klystron B	eam Current		. I5-32 MA	0	32	MA
	В.	IF Limiter Cu M201 Reading		(-19	will not meet red MAX -20	quirement)	_ Pegg	<del>je</del> d .
	C.	IF AMP Noise	e Level		-17 + 3 db		18.5	<u>5</u> db
	D.	Receiver 3 db	Quieting Sensitiv	ity	MAX -85 dbm	1	86,5	dbm
	Ε.	IF AMP Device	ation Sensitivity		+3 to -3 db		2.8	_db
2.	REC	CEIVER B						
	Α.	RX Klystron Be	eam Current .		15-32 MA		22	MA
	В.	IF Limiter cur Reading)	rent (Meter M201	(-19 v	vill not meet rec MAX -20	quirement)	Peg	ged
	C.	IF AMP Noise	Level		-17 + 3 db		18	_db
	D.	Receiver 3 db	Quieting Sensitiv	ity	MAX -85 dbm	1	85	dbm
	Ε.	IF AMP Device	tion Sensitivity		+3 to -3 db		2.6	db
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# BIG RALLY II PROJECT

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#### DATA SHEET

#### MW-503A LOS STATION TEST

		STATIONGPA	
	Transmitter Path: From Station	GPA to Station GAB	
ı.	RECEIVER A	EXPECTED	ACTUAL
	A. RX Klystron Beam Current	I5-32 MA	21.5MA
	B. IF Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	Off scale
	C. IF AMP Noise Level	-17 <u>+</u> 3 db	-17.5 db
	D. Receiver 3 db Quieting Sensitivity	MAX -85 dbm	_85 dbm
	E. IF AMP Deviation Sensitivity	+3 to -3 db	-2.6 db
2.	RECEIVER B		
	A. RX Klystron Beam Current	15-32 MA	26MA
	B. IF Limiter current (Meter M201 Reading)	(-19 will not meet requirement), MAX -20	<u>-40</u>
	C. IF AMP Noise Level	-17 <u>+</u> 3 db	₩18.2 db
	D. Receiver 3 db Quieting Sensitivity	MAX -85 dbm	_85_dbm
	E. IF AMP Deviation Sensitivity	+3 to -3 db	_2.4 db
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## BIG RALLY II PROJECT

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## DATA SHEET

		STATION GAB	
	Transmitter Path: From Station GAB	to Station GPA	
1.	RECEIVER A	EXPECTED	ACTUAL
	A. RX Klystron Beam Current	I5-32 MA	29.0 MA
	B. IF Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	-50 (Pegged)
	C. IF AMP Noise Level	-17 <u>+</u> 3 db	-20.0 db
	D. Receiver 3 db Quieting Sensitivity	MAX -85 dbm	_88.5 dbm
	E. IF AMP Deviation Sensitivity	+3 to -3 db	-2.3 db
2.	RECEIVER B		
	A. RX Klystron Beam Current	15-32 MA	23.0 MA
	B. IF Limiter current (Meter M201 Reading)	(-19 will not meet requirement) .  MAX -20	-50 (Pegged)
	C. IF AMP Noise Level	-17 <u>+</u> 3 db	_19.8 db
	D. Receiver 3 db Quieting Sensitivity	MAX -85 dbm	_85.2 dbm
8	E. IF AMP Deviation Sensitivity	+3 to -3 db	-2.8 db
		TESTER SUPERVISOR	Ly 1963 Louises
,		QUALITY ASSURANCE	Roulell
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# BIG RALLY II PROJECT

# DATA SHEET

	STATION GA LOS	
Transmission Patch: From Station GA	to STATION GPA	
HOT STANDBY CONFIGURATION	EXPECTED	ACTUAL
A. VSWR Measurement at TX Frequency	1.4:1	:1.
B. VSWR Measurement at RX Frequency	1.4:1	:1
FREQUENCY DIVERSITY CONFIGURATION		
A. VSWR Measurement at TX-A Frequency	1.4:1	:1
B. VSWR Measurement at TX-B Frequency	1.4:1	:1
C. VSWR Measurement at RX-A Frequency	1.4:1	:l
D. VSWR Measurement at RX-B Frequency	1.4:1	<u></u> :
SPACE DIVERSITY CONFIGURATION		
<ul> <li>A. Waveguide Run #1</li> <li>I) VSWR Measurement at TX Frequency</li> <li>2) VSWR Measurement at RX Frequency</li> </ul>	1.4:1	1.14 :l 1.167 :l
<ul> <li>3. Waveguide Run #2</li> <li>1) VSWR Measurement at TX Frequency</li> <li>2) VSWR Measurement at RX Frequency</li> </ul>	1.4:1	1.18 :1 1.114 :1
SEE ATTACHED SHEET FOR VSWR MEASUREMEN	TS AT ADDITIONAL FREQUE	ENCTES.
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#### BIG RALLEY IT PROJECT

#### DATA SHEET

#### MW-503A LOS STATION TESTS

Cransmission path: From Station	GA to Station	GPA
	EXPECTED	ACTUAL
SPACE DIVERSITY CONFIGURATION		
A. Waveguide Run # 1 "A"		
1) VSWR Measurement at TX F	requency Alug & minu	s 500 KCS
and plus & minus 1 MC	roducity, Prus a minu	3 700 NOS
a) 8156 MCS	1.4;1	1.07:1
b) 8155.5 MCs	1.4:1	1.11:1
c) 8155MCS		1.14:1
	1,4:1	
d) 8154.5 MCS	1.4:1	1.09:1
e) 8154 MCS	1.4:1	1.09:1
2) HOLD Warmont of DV F	0	FOO: IVOG
2) VSWR Measurement at RX F	requency, plus & minus	200 VOS
and plus & minus 1 MC	7 , 7	2 70.7
a) 8346 MCS	1.4:1	1.19:1
b) 8345.5 MCS	1.4:1	1.14:1
c) 8345 MCS	1.4:1	1.17:1
d) 8344.5 MCS	1.4:1	1.12:1
e) 8344 MCS  B. Waveguide Run #2 "B"	1.4:1	1.11:1
B. Waveguide Run #2 "B"  1) VSWR Measurement at TX  and plus & minus 1 MC  a) 8156 MCS  b) 8155.5 MCS  c) 8155 MCS	1.4:1 Frequency plus & minus 1.4:1 1.4:1 1.4:1	1.11:1 500 KCS 1.15:1 1.15:1 1.18:1
B. Waveguide Run #2 "B"  1) VSWR Measurement at TX  and plus & minus 1 MC  a) 8156 MCS b) 8155.5 MCS c) 8155 MCS d) 8154.5 MCS	1.4:1 Frequency plus & minus 1.4:1 1.4:1 1.4:1	1.11:1 500 KCS 1.15:1 1.15:1 1.18:1 1.17:1
B. Waveguide Run #2 "B"  1) VSWR Measurement at TX  and plus & minus 1 MC  a) 8156 MCS b) 8155.5 MCS c) 8155 MCS d) 8154.5 MCS e) 8154 MCS	1.4:1 Frequency plus & minus 1.4:1 1.4:1 1.4:1 1.4:1	1.11:1 500 KCS 1.15:1 1.15:1 1.18:1 1.17:1 1.16:1
B. Waveguide Run #2 "B"  1) VSWR Measurement at TX  and plus & minus 1 MC  a) 8156 MCS b) 8155.5 MCS c) 8155 MCS d) 8154.5 MCS e) 8154 MCS 2) VSWR Measurement at RX	1.4:1 Frequency plus & minus 1.4:1 1.4:1 1.4:1 1.4:1	1.11:1 500 KCS 1.15:1 1.15:1 1.18:1 1.17:1 1.16:1
B. Waveguide Run #2 "B"  1) VSWR Measurement at TX  and plus & minus 1 MC  a) 8156 MCS b) 8155.5 MCS c) 8155 MCS d) 8154.5 MCS e) 8154 MCS 2) VSWR Measurement at RX	1.4:1  Frequency plus & minus  1.4:1 1.4:1 1.4:1 1.4:1 1.4:1	1.11:1  500 KCS  1.15:1 1.15:1 1.18:1  1.17:1 1.16:1 s 500 KCS
B. Waveguide Run #2 "B"  1) VSWR Measurement at TX  and plus & minus 1 MC  a) 8156 MCS b) 8155.5 MCS c) 8155 MCS d) 8154.5 MCS e) 8154 MCS  2) VSWR Measurement at RX and plus & minus 1 MC  a) 8346 MCS	1.4:1  Frequency plus & minus  1.4:1 1.4:1 1.4:1 1.4:1 1.4:1 1.4:1	1.11:1  500 KCS  1.15:1 1.15:1 1.18:1 1.16:1 s 500 KCS 1.15:1
B. Waveguide Run #2 "B"  1) VSWR Measurement at TX  and plus & minus 1 MC  a) 8156 MCS b) 8155.5 MCS c) 8155 MCS d) 8154.5 MCS e) 8154 MCS 2) VSWR Measurement at RX and plus & minus 1 MC a) 8346 MCS b) 8345.5 MCS	1.4:1  Frequency plus & minus  1.4:1 1.4:1 1.4:1 1.4:1 1.4:1 1.4:1 1.4:1	1.11:1  500 KCS  1.15:1 1.15:1 1.16:1 s 500 KCS  1.15:1 1.14:1
B. Waveguide Run #2 "B"  1) VSWR Measurement at TX  and plus & minus 1 MC  a) 8156 MCS b) 8155.5 MCS c) 8155 MCS d) 8154.5 MCS e) 8154 MCS 2) VSWR Measurement at RX  and plus & minus 1 MC  and plus & minus 1 MC  and 8346 MCS b) 8345.5 MCS c) 8345 MCS	1.4:1  Frequency plus & minus  1.4:1 1.4:1 1.4:1 1.4:1 1.4:1 1.4:1 1.4:1	1.11:1  500 KCS  1.15:1 1.15:1 1.16:1 s 500 KCS  1.15:1 1.14:1 1.14:1
B. Waveguide Run #2 "B"  1) VSWR Measurement at TX  and plus & minus 1 MC  a) 8156 MCS b) 8155.5 MCS c) 8155 MCS d) 8154.5 MCS e) 8154 MCS 2) VSWR Measurement at RX and plus & minus 1 MC and B345.5 MCS b) 8345.5 MCS c) 8345 MCS d) 8344.5 MCS	1.4:1  Frequency plus & minus  1.4:1 1.4:1 1.4:1 1.4:1 1.4:1 1.4:1 1.4:1 1.4:1 1.4:1	1.11:1  500 KCS  1.15:1 1.15:1 1.16:1 s 500 KCS  1.15:1 1.14:1 1.14:1 1.14:1
B. Waveguide Run #2 "B"  1) VSWR Measurement at TX  and plus & minus 1 MC  a) 8156 MCS b) 8155.5 MCS c) 8155 MCS d) 8154.5 MCS e) 8154 MCS 2) VSWR Measurement at RX  and plus & minus 1 MC  and plus & minus 1 MC  and 8346 MCS b) 8345.5 MCS c) 8345 MCS	1.4:1  Frequency plus & minus  1.4:1 1.4:1 1.4:1 1.4:1 1.4:1 1.4:1 1.4:1	1.11:1  500 KCS  1.15:1 1.15:1 1.16:1 s 500 KCS  1.15:1 1.14:1 1.14:1
B. Waveguide Run #2 "B"  1) VSWR Measurement at TX  and plus & minus 1 MC  a) 8156 MCS b) 8155.5 MCS c) 8155 MCS d) 8154.5 MCS e) 8154 MCS 2) VSWR Measurement at RX and plus & minus 1 MC and B345.5 MCS b) 8345.5 MCS c) 8345 MCS d) 8344.5 MCS	1.4:1  1.4:1 1.4:1 1.4:1 1.4:1 1.4:1 1.4:1 1.4:1 1.4:1 1.4:1 1.4:1 1.4:1 1.4:1	1.11:1  500 KCS  1.15:1 1.15:1 1.18:1 1.16:1 s 500 KCS  1.15:1 1.14:1 1.14:1 1.14:1
B. Waveguide Run #2 "B"  1) VSWR Measurement at TX  and plus & minus 1 MC  a) 8156 MCS b) 8155.5 MCS c) 8155 MCS d) 8154.5 MCS e) 8154 MCS 2) VSWR Measurement at RX and plus & minus 1 MC and B345.5 MCS b) 8345.5 MCS c) 8345 MCS d) 8344.5 MCS	1.4:1  1.4:1  1.4:1  1.4:1  1.4:1  1.4:1  1.4:1  1.4:1  1.4:1  1.4:1  1.4:1  1.4:1  1.4:1  1.4:1	1.11:1  500 KCS  1.15:1 1.15:1 1.16:1 s 500 KCS  1.15:1 1.14:1 1.14:1 1.14:1
B. Waveguide Run #2 "B"  1) VSWR Measurement at TX  and plus & minus 1 MC  a) 8156 MCS b) 8155.5 MCS c) 8155 MCS d) 8154.5 MCS e) 8154 MCS 2) VSWR Measurement at RX and plus & minus 1 MC and B345.5 MCS b) 8345.5 MCS c) 8345 MCS d) 8344.5 MCS	1.4:1  1.4:1 1.4:1 1.4:1 1.4:1 1.4:1 1.4:1 1.4:1 1.4:1 1.4:1 1.4:1 1.4:1 1.4:1	1.11:1  500 KCS  1.15:1 1.15:1 1.18:1 1.16:1 s 500 KCS  1.15:1 1.14:1 1.14:1 1.14:1
B. Waveguide Run #2 "B"  1) VSWR Measurement at TX  and plus & minus 1 MC  a) 8156 MCS b) 8155.5 MCS c) 8155 MCS d) 8154.5 MCS e) 8154 MCS 2) VSWR Measurement at RX and plus & minus 1 MC and B345.5 MCS b) 8345.5 MCS c) 8345 MCS d) 8344.5 MCS	1.4:1  1.4:1  1.4:1  1.4:1  1.4:1  1.4:1  1.4:1  1.4:1  1.4:1  1.4:1  1.4:1  1.4:1  1.4:1  1.4:1	1.11:1  500 KCS  1.15:1 1.15:1 1.18:1 1.16:1 s 500 KCS  1.15:1 1.14:1 1.14:1 1.14:1

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# BIG RALLY II PROJECT

# DATA SHEET

		STATION	GPA		
	Transmission Patch: From Station GPA	to STATION	GA	•	
1.	HOT STANDBY CONFIGURATION	EXPECTED		ACTUAL	
	A. VSWR Measurement at TX Frequency	1.4:1		N/A	_:l
	B. VSWR Measurement at RX Frequency	1.4:1		N/A	_:l
2.	FREQUENCY DIVERSITY CONFIGURATION	T+1./			
3 -	A. VSWR Measurement at TX-A Frequency	1.4:1		N/A	_:1
	B. VSWR Measurement at TX-B Frequency	1.4:1		N/A	_:1
	C. VSWR Measurement at RX-A Frequency	1.4:1		N/A	_:
	D. VSWR Measurement at RX-B Frequency	1.4:1		N/A	_:
3.	SPACE DIVERSITY CONFIGURATION				
	<ul> <li>A. Waveguide Run #1</li> <li>I) VSWR Measurement at TX Frequency</li> <li>2) VSWR Measurement at RX Frequency</li> </ul>	1.4:1		1.12	_:l
	<ul> <li>B. Waveguide Run #2</li> <li>1) VSWR Measurement at TX Frequency</li> <li>2) VSWR Measurement at RX Frequency</li> </ul>	1.4:l 1.4:l		1.08	_:  _:
		DATE	4 Jul	y 63	And Transport
	See sheet 2 for VSWR measurements at TX & RX for different frequence	TESTER	1 m	201	-
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	Sheet I of I	GEEIA Rob	leito à	eler	/

#### MW-503A LOS STATION TESTS

STATION: GPA

Transmission Path: From GPA Station to GA Station

#### RECEIVER FREQUENCY - 8155 Mc

Frequency	пди			I <sub>B</sub> II
- I oquonoj	%	VSWR	%	VSWR
8156 Mc	4.9	1.10	5.9	1.12
8155.5 Mc	2.4	1.05	7.3	1.16
8155 Mc	2.2	1.05	7.7	1.17
8154.5 Mc	2.7	1.06	8.0	1.18
8154 Mc	1.8	1.04	8.6	1.19
8153.5	<b>-</b> 1144	. <b>-</b> 1252	8.9	1.20

#### TRANSMITTER FREQUENCY - 8345 Mc

	Frequency	"A"	Vswr	%	"B" VSWR
	8346 Mc	1.9	1.04	1.7	1.04
	8345.5 Mc	3.5	1.08	8.5	1.19
4,	8345 Mc	5.9	1.12	3.4	1.08
	8544.5 Mc	6.5	1.14	3.4	1.08
	8544 Mc	4.5	1.10	1.8	1.04

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## BIG RALLY II PROJECT

#### DATA SHEET

## MW-503A LOS STATION TESTS

	STATION	GPA
Transmission Patch: From Station GPA	to STATION	GAB
I. HOT STANDBY CONFIGURATION	EXPECTED	ACTUAL
A. VSWR Measurement at TX Frequency	1.4:1	_N/A :1
B. VSWR Measurement at RX Frequency	1.4:1	
2. FREQUENCY DIVERSITY CONFIGURATION		
A. VSWR Measurement at TX-A Frequency	1.4:1	N/A :1
B. VSWR Measurement at TX-B Frequency	1.4:1	N/A:
C. VSWR Measurement at RX-A Frequency	1.4:1	N/A:
D. VSWR Measurement at RX-B Frequency	1.4:1	N/A :1
3. SPACE DIVERSITY CONFIGURATION		
<ul> <li>A. Waveguide Run #1</li> <li>I) VSWR Measurement at TX Frequency</li> <li>2) VSWR Measurement at RX Frequency</li> </ul>		1.08 :I
B. Waveguide Run #2 1) VSWR Measurement at TX Frequency 2) VSWR Measurement at RX Frequency	.4:   .4:	1.13 :1

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# DATA SHEET Addendum to BR II/83 MW-503A LOS STATION TESTS Sheet 1 022

STATION: GPA

Transmission Path: From GPA Station to GAB Station

## RECEIVER FREQUENCY

8075 Mc	Rx	A VSWR	Rx %	B VSWR
8074 Mc (201.850 Mc)	2.6	1.05	6.0	1.13
8074.5 Mc (201.863 Mc)	4.2	1.09	7.2	1.16
8075 Mc (201.875 Mc)	4.4	1.10	9.2	1.20
8075.5 Mc (201.888 Mc)	3	1.06	3.2	1.07
8076 (201.9 Mc)	4.3	1.10	9.3	1.20

#### TRANSMITTER FREQUENCY

8265 Mc	Tx	A VSWR	Tx %	B VSWR
8264 Mc (206.600 Mc)	2.4	1.05	3.7	1.08
8264.5 Mc (206.612 Mc)	1.5	1.03	3.2	1.07
8265 Mc (206.625 Mc)	3.8	1.08	6.0	1.13
8265.5 Mc (206.638 Mc)	3.4	1.08	5.8	1.12
8266 Mc (206.650 Mc)	4.2	1.09	7.2	1.16

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GEETA Robert D Logler

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#### BIG RALLY II PROJECT

DATA SHEET

## MW-503A LOS STATION TESTS

		STATION GAB	,
	Transmission Patch: From Station GAB	to STATION	GPA
Ι.	HOT STANDBY CONFIGURATION	EXPECTED	ACTUAL
	A. VSWR Measurement at TX Frequency	1.4:1	<u>:</u>
	B. VSWR Measurement at RX Frequency	1.4:1	:1
2.	FREQUENCY DIVERSITY CONFIGURATION		
	A. VSWR Measurement at TX-A Frequency	1.4:1	1:
	B. VSWR Measurement at TX-B Frequency	1.4:1	1:
	C. VSWR Measurement at RX-A Frequency	1.4:1	1:
	D. VSWR Measurement at RX-B Frequency	1.4:1	**
3.	SPACE DIVERSITY CONFIGURATION		
	<ul> <li>A. Waveguide Run #1</li> <li>I) VSWR Measurement at TX Frequency</li> <li>2) VSWR Measurement at RX Frequency</li> </ul>	1.4:1 1.4:1	1.14 :1
	<ul> <li>B. Waveguide Run #2</li> <li>I) VSWR Measurement at TX Frequency</li> <li>2) VSWR Measurement at RX Frequency</li> </ul>	1.4:1 1.4:1	1.07 :l 1.15 :l

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Sheet I of I

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Robert D Legler

## BIO RALLY II PROJECT

## DATA SHEET

nsmission Path: From Station		Lamite
	EXPECTED	ACTUAL
PACE DIVERSITY CONFIGURATION		
. Wavegurde Run #1 "A"		
1) VSWR Measurement at TX Fre	equency, Plus & Minus 500	KCS
and Plus & Minus 1 MC		
a) 2076 MCS	1.4;1	1,11;1
b) \$975.5 MCS	1.4:1	1.14:1
c) <u>\$675 MCS</u>	1,4:1	1.14:1
d) \$074.5 MCS	1.4:1	1.15:1
e) <b>\$97</b> 4 MCS	1.4:1	1.11:1
2) VSWR Measure at RX Frequer	ncy, Plus & Minus 500 KCS	
and Plus & Minus 1 MC		
a)8266 MCS	1.4:1	1.97:1
b) \$265.5 MCS	1.4:1	1.09:1
c) \$265 MCS	1.4:1	1,13:1
d) \$264.5 MCS	1.4:1	1.05:1
e) \$264 MCS	1.4:1	1.13:1
B. Waveguide Run # 2 "B"		
1) VSWR Measurement at TX Free	mency Plus & Minus 500 Kf	29
and Plus & Minus 1 MC	fuency i lus a minus se no	
a) 5076 MCS	1.4:1	1.07:1
b) 2075.5 MCS	1.4:1	1.59:1
	1.4:1	1.07:1
c) \$075 MCS		1.97:1
	1.4:1	1.97:I 1.09:1
c) \$075 MCS d) \$074.5 MCS	1.4:1	1.09:1
c) \$075 MCS d) \$074.5 MCS e) \$074 MCS	1.4:1	1.09:1
c) \$075 MCS d) \$074.5 MCS e) \$074 MCS 2) VSWR Messurement at RX Fre	1.4:1	1.09:1
c) \$075 MCS d) \$074.5 MCS e) \$074 MCS 2) VSWR Messurement at RX Free and Plus & Minus 1 MC a) \$265 b) \$265.5 MCS	1.4:1 1.4:1 equency Plus & Minus 500 M	1.09:1 (CS
c) \$075 MCS d) \$074.5 MCS e) \$074 MCS 2) VSWR Messurement at RX Freend Plus & Minus 1 MC a) \$265 b) \$265.5 MCS c) \$265 MCS	1.4:1 1.4:1 equency Plus & Minus 500 M 1.4:1 1.4:1 1.4:1	1.07:1 (CS 1.11:1 1.11:1 1.15:1
c) \$075 MCS d) \$074.5 MCS e) \$074 MCS 2) VSWR Measurement at RX Freend Plus & Minus 1 MC a) \$265 b) \$265.5 MCS c) \$265 MCS d) \$264.5 MCS	1.4:1 1.4:1 equency Plus & Minus 500 } 1.4:1 1.4:1 1.4:1	1.09:1 (CS 1.11:1 1.11:1 1.15:1 1.15:1
c) \$075 MCS d) \$074.5 MCS e) \$074 MCS 2) VSWR Messurement at RX Freend Plus & Minus 1 MC a) \$265 b) \$265.5 MCS c) \$265 MCS	1.4:1 1.4:1 equency Plus & Minus 500 M 1.4:1 1.4:1 1.4:1	1.07:1 (CS 1.11:1 1.11:1 1.15:1
c) \$075 MCS d) \$074.5 MCS e) \$074 MCS 2) VSWR Measurement at RX Freend Plus & Minus 1 MC a) \$265 b) \$265.5 MCS c) \$265 MCS d) \$264.5 MCS	1.4:1 1.4:1 equency Plus & Minus 500 } 1.4:1 1.4:1 1.4:1	1.09:1 (CS 1.11:1 1.11:1 1.15:1 1.15:1

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BIG RALLY TI PROJECT

DATA SHEET

		STATION GA LOS
	Transmission Path: From Station GA	to STATION GPA
	REQUIREMENT	INITIAL IF OK
		"P" Rack  (See Note 1 on Sheet 3 of this data sheet.)
1.	"A" POWER FAILURE	
	A. Patch Panel Equip Alarm Lights	JHT
	B. External Alarms Energized	JHT
	C. "A" Diversity Path Alarm Light	JHT
	D. "A" Power Supply Alarm Lamp Lights (where applicable)	JHT JHT
	E. Audible Alarm	oni
	F. Hot-Standby & Space Diversity The "A"	JHT
	Fault and "B" inservice lamps on the SW/O Control Units Lit	
2.	"B" POWER FAILURE	
	A. Patch Panel Equip Alarm Lights	JHT
	5. External Alarms Energized	JHT
	C. "B" Diversity Alarms Energized	JHT .
	D. "B" Power Supply Alarm Lamp Lights (where applicable)	JHT

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# BIG RALLY II PROJECT

#### DATA SHEET

# MW-503A LOS STATION TESTS

E. Audible Alarm	JHT
F. Hot-Standby & Space Diversity. The "B" Fault & "A" In-Service Lamps on the SW/O Control Unit Lit	JHT
"A" MODULATION ALARM	
A. "A" AFC Pilot Sensor Alarm	JHT
B. Patch Panel Equip Alm Lights	JHT
C. External Alarms Energized	JHT
D. Audible Alarm	ЈНТ
E. Hot-Standby & Space Diversity. The "A" Fault & "B" In-Service Lamps on the SW/O Control Unit (JI-J2) Lit	JHT
"B" MODULATION ALARM	
A. "B" AFC Pilot Sensor Alarm Lamp Lights	JHT
B. Patch Panel Equip Alm Lights	JHT
C. External Alarms Energized	JHT
D. Audible Alarm	JHT
E. Hot-Standby & Space Diversity. The "B" Fault and "A" In-Service Lamps on the SW/O Control Unit (JI-J2) Lit	JHT
"A" POWER ALARM	
A. "A" AFC Meter Pulses	JHT
B. Patch Panel Equip Alm Lights	JHT
C. External Alarms Energized	JHT

#### BIG RALLY II PROJECT.

#### DATA SHEET

#### MW-503A LOS STATION TESTS

D. Audible Alarm	
E. Hot-Standby & Space Diversity. The "A" Fault & "B" In-Service Lamps on the SW/O Control Unit (JI-J2) Lit	JHT
. "B" POWER ALARM	
A. "B" AFC Meter Pulses	JHT
B. Patch Panel Equip Alm Lights	JHT
C. External Alarms Energized	JHT
D. Audible Alarm	JHT
E. Hot-Standby & Space Diversity. The "B" Fault & "A" In-Service Lamps on the SW/O Control Unit (JI-J2) Lit	JHT

#### NOTES

- 1. Enter NA in the "Check IF OK" Column when the test is not applicable.
- 2. The "External Alarms Energized" Requirements applies to systems containing Fault
  Alarm Equipment.
- 3. A Faulure Simulation Test should light only the rack alarm in the rack containing the equipment being tested.
- 4. "P" Rack is a powered rack, while a "N" Rack is a non-powered rack, receiving its power from the "P" rack.

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TESTER July Think
SUPERVISOR foul Mlenen of
QUALITY ASSURANCE Ston Paralell
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# BIG RALLY II PROJECT

# DATA SHEET

		61	STATION	GPA
Transm	nission Path: From Station GPA	to	STATION	GA
	REQUIREMENT		INITIAL	IF OK
			"P" Rack (See Note I on data sheet.)	"N" Rack Sheet 3 of this
1. "A" PC	WER FAILURE			
A. Po	atch Panel Equip Alarm Lights		v.Q. VQ	N/A
B. Ex	ternal Alarms Energized	•	v.q. 1/2	N/A/
C. "A	" Diversity Path Alarm Light		V.0 5/0	N/A
	A" Power Supply Alarm Lamp  Lights where applicable)		v.q. 19	N/A
E. Au	udible Alarm		V.Q. 10	N/A/
F. Ho	ot-Standby & Space Diversity The "A"		v.Q. 1/9	N/A
	ult and "B" inservice lamps on the V/O Control Units Lit			
2. "B" PO	WER FAILURE			
A. Po	erch Panel Equip Alarm Lights		v.Q. 1/9	N/A
B. Ex	ternal Alarms Energized		v.Q. 1/2	N/A
Ç. "B	" Diversity Alarms Energized		v.Q. 1/9	N/A
	" Power Supply Alarm Lamp Lights (where applicable)	100 001 0	v.q. 18	N/A

#### BIG RALLY II PROJECT

#### DATA SHEET

## MW-503A LOS STATION TESTS

	Ε.	Audible Alarm	v.Q. 70	· N/A
	F.	Hot-Standby & Space Diversity. The "B" Fault & "A" In-Service Lamps on the SW/O Control Unit Lit	v.Q. \$/3	N/A
3.	"A	" MODULATION ALARM		
	Α.	"A" AFC Pilot Sensor Alarm	<u>v.o. /g</u>	N/A
	В.	Patch Panel Equip Alm Lights	v.o. 10	N/A
	c.	External Alarms Energized	v.q. 1/2	N/A
	D.	Audible Alarm	v.Q. V@	N/A
	Ε.	Hot-Standby & Space Diversity. The "A" Fault & "B" In-Service Lamps on the SW/O Control Unit (JI-J2) Lit	V.O. VQ	N/A
4.	"B"	MODULATION ALARM		
	Α.	"B" AFC Pilot Sensor Alarm Lamp Lights	v.o. V9	N/A
	В.	Patch Panel Equip Alm Lights	v-Q- \$/Q	N/A
	c.	External Alarms Energized	v. Q. VQ	N/A
	D.	Audible Alarm	v.o. ×2	N/A
	E.	Hot-Standby & Space Diversity. The "B" Fault and "A" In-Service Lamps on the SW/O Control Unit (JI-J2) Lit	v.o. V	N/A
5.	H.A.F	POWER ALARM		
	A.,	"A" AFC Meter Pulses	v.o. 19	N/A
	В.	Patch Panel Equip Alm Lights	v.Q. 14	N/A
	C.	External Alarms Energized	V.Q.V	N/A

Sheet 2 of 3

#### BIG RALLY II PROJECT.

#### DATA SHEET

#### MW-503A LOS STATION TESTS

5	υ.	Audible Alarm	V.O. 74		N/A	
de de		Hot-Standby & Space Diversity. The "A" Fault & "B" In-Service Lamps on the SW/O Control Unit (JI-J2) Lit	v.Q. 5/4	_	N/A	
	"B"	POWER ALARM				
	Α.	"B" AFC Meter Pulses	v.q. V3		N/A	
	В.	Patch Panel Equip Alm Lights	v.Q. 1/3		N/A	
	С.	External Alarms Energized	v.Q. 54		N/A	
	D.	Audible Alarm	V.O. 29		N/A	
	Ε.	Hot-Standby & Space Diversity. The "B" Fault & "A" In-Service Lamps on the SW/O Control Unit (JI-J2) Lit	v.Q. 1/3	-	N/A	-

#### NOTES

- 1. Enter NA in the "Check IF OK" Column when the test is not applicable.
- 2. The "External Alarms Energized" Requirements applies to systems containing Fault

  Alarm Equipment.
- 3. A Faulure Simulation Test should light only the rack alarm in the rack containing the equipment being tested.
- 4. "P" Rack is a powered rack, while a "N" Rack is a non-powered rack, receiving its power from the "P" rack.

DATE 3 July 63
TESTER Smeat Guinn
SUPERVISOR 1. Managorial
QUALITY ASSURANCE Mario Con

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#### BIG RALLY II PROJECT

#### DATA SHEET

	STATION GPA	
Transmission Path: From Station GPA	to STATION GAB	
REQUIREMENT	INITIAL IF O	Κ
	"P" Rack (See Note I on Shee data sheet.)	"N" Rack t 3 of this
I. "A" POWER FAILURE		
A. Patch Panel Equip Alarm Lights	MC Me	N/A
B. External Alarms' Energized	MC me	11
C. "A" Diversity Path Alarm Light	Ma We	11
D. "A" Power Supply Alarm Lamp  Lights (where applicable)	MC Me	11
E. Audible Alarm	MC WC	
F. Hot-Standby & Space Diversity The "A"	MC We	1 1
Fault and "B" inservice lamps on the SW/O Control Units Lit		
2. "B" POWER FAILURE		
A. Patch Panel Equip Alarm Lights	MC MC	N/A
S. External Alarms Energized	MC Me	1 1
C. "3" Diversity Alarms Energized	Mc duc	11
D. "B" Power Supply Alarm Lamp Lights (where applicable)	Mc me	88

#### BIG RALLY II F'ROJECT

#### DATA SHEET

	Ε.	Audible Alarm	mc we	N/A
	F.	Hot-Standby & Space Diversity. The "B" Fault & "A" In-Service Lamps on the SW/O Control Unit Lit	MC WC	* *
3.	<u>"A</u>	" MODULATION ALARM		
	Α.	"A" AFC Pilot Sensor Alarm	MC Mc	N/A
	В.	Patch Panel Equip Alm Lights	Mc we	
	C.	External Alarms Energized	MC W2	
	D.	Audible Alarm	MC VVC	
	. E.	Hot-Standby & Space Diversity. The "A" Fault & "B" In-Service Lamps on the SW/O Control Unit (JI-J2) Lit	MC WC	
4.	"B"	MODULATION ALARM		
	Α.	"B" AFC Pilot Sensor Alarm Lamp Lights	MC WE	
	В.	Patch Panel Equip Alm Lights	MC WE	
	C.	External Alarms Energized	MC WC	
	D,	Audible Alarm	MC √ (	
	F.		750 (1) (	- 1
		Fault and "A" In-Service Lamps on the SW/O Control Unit (JI-J2) Lit	MC WC	
5.		Fault and "A" In-Service Lamps on the	MC OWE	
5.	n_in	Fault and "A" In-Service Lamps on the SW/O Control Unit (JI-J2) Lit	Mc luc	
5.	<u>вди</u> А.	Fault and "A" In-Service Lamps on the SW/O Control Unit (JI-J2) Lit  POWER ALARM	luo	

#### BIG RALLY II PROJECT

#### DATA SHEET

#### MW-503A LOS STATION TESTS

· D	. Audible Alarm	MC	me	N/A
Ε.	Hot-Standby & Space Diversity. The "A" Fault & "B" In-Service Lamps on the SW,/O Control Unit (JI-J2) Lit		Inc	
6. "B	" POWER ALARM			
A	. "B" AFC Meter Pulses	МС	ene	
В.	Patch Panel Equip Alm Lights	MC_	ine	
С	. External Alarms Energized	MC	inc	
D	. Audible Alarm	MC	luc	
. E.	Hot-Standby & Space Diversity. The "B" Fault & "A" In-Service Lamps on the SW/O	MC	enc	

#### NOTES

- 1. Enter NA in the "Check IF OK" Column when the test is not applicable.
- 2. The "External Alarms Energized" Requirements applies to systems containing Fault Alarm Equipment.
- 3. A Faulure Simulation Test should light only the rack alarm in the rack containing the equipment being tested.
- 4. "P" Rack is a powered rack, while a "N" Rack is a non-powered rack, receiving its power from the "P" rack.

	DATE 17 July 63
	TESTER Vincent Guinn
	SUPERVISOR 1 Wanger
	QUALITY ASSURANCE M. Co.
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#### BIG RALLY II PROJECT

#### DATA SHEET

		STATION GAB
	Transmission Path: From Station GAB	to STATION GPA
	REQUIREMENT	INITIAL IF OK
		"P" Rack  (See Note I on Sheet 3 of this data sheet.)
1. "	A" POWER FAILURE	
	A. Patch Panel Equip Alarm Lights	WJS
	B. External Alarms Energized	· WJS
	C. "A" Diversity Path Alarm Light	WJS
	D. "A" Power Supply Alarm Lamp  Lights (where applicable)	W13
	E. Audible Alarm	WJS
	F. Hot-Standby & Space Diversity The "A"	WJS
2.	Fault and "B" inservice lamps on the SW/O Control Units Lit G. 308 KC PILOT OSC. ALARM LIGHT 'B" POWER FAILURE	WJS
	A. Patch Panel Equip Alarm Lights	WJS
	B. External Alarms Energized	— WJS
	C. "8" Diversity Alarms Energized	WJS
	D. "B" Power Supply Alarm Lamp Lights (where applicable)	wJs

# BIG RALLY II PROJECT

#### DATA SHEET

	E. /	Audible Alarm	WJA		
		Hot-Standby & Space Diversity. The "B" Fault & "A" In-Service Lamps on the SW/O	WJS	-	•
3.	G.	Control Unit Lit 308 KC PILOT CSC. ALARM LIGHT MODULATION ALARM	WJS		
	Α.	"A" AFC Pilot Sensor Alarm	WJS		
	В. Я	Patch Panel Equip Alm Lights	WJS		
	C.	External Alarms Energized	WJS		
	D	Audible Alarm	WJS		
		Hot-Standby & Space Diversity. The "A" Fault & "B" In-Service Lamps on the SW/O Control Unit (JI-J2) Lit	WJS		
4.	"B" \	MODULATION ALARM			
	Α.	"B" AFC Pilot Sensor Alarm Lamp Lights	WJS	<u></u>	
	B. F	Patch Panel Equip Alm Lights	WJS		
	C. 1	External Alarms Energized	WJS	· · ·	
	D. /	Audible Alarm	WJS		
		Hot-Standby & Space Diversity. The "B". Fault and "A" In-Service Lamps on the SW/O Control Unit (JI-J2) Lit	WJS	-	
5.	HAO 7	OWER ALARM			
	Α.	'A" AFC Meter Pulses	WJS		
	Б. Р	Patch Panel Equip Alm Lights	WJS		
	C. 8	External Alarms Energized	WJS		

#### BIG RALLY II PROJECT.

#### DATA SHEET

#### MW-503A LOS STATION TESTS

	D. Audible Alarm	WJS			1
	E. Hot-Standby & Space Diversity. The "A" Fault & "B" In-Service Lamps on the SW/O Control Unit (JI-J2) Lit	WJS	_		
6.	"B" POWER ALARM				
	A. "B" AFC Meter Pulses	WJS	<u> </u>		
	B. Patch Panel Equip Alm Lights	WJS	_		
	C. External Alarms Energized	WJS			
	D. Audible Alarm	WJS			
	E. Hot-Standby & Space Diversity. The "B" Fault & "A" In-Service Lamps on the SW/O	WJS			2.
	Control Unit (JI-J2) Lit	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		TOTAL STREET,	

#### NOTES

- 1. Enter NA in the "Check IF OK" Column when the test is not applicable.
- 2. The "External Alarms Energized" Requirements applies to systems containing Fault Alarm Equipment.
- 3. A Faulure Simulation Test should light only the rack alarm in the rack containing the equipment being tested.
- 4. "?" Rack is a powered rack, while a "N" Rack is a non-powered rack, receiving its power from the "P" rack.

	DATE 17 JULY 1963	
	TESTER Uhl Schredder	
	SUPERVISOR Frank O Skorpinch	ث
	QUALITY ASSURANCE Standard	
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## BIG RALLY II PROJECT

## DATA SHEET

# MW-503A LOS LINK TEST '

			•		STATION_	GA	· · · · · · · · · · · · · · · · · · ·	
Transm	ission Path:	From Station_	GA	to	STATION_	GPA		
I. DIVERS	TY TESTS (A	all configur	ations)	•	EXPECTED		ACTUAL	-
A. Pil	ot Level at .	A IN terminals o	of Control P	anel	-47 to -53 d	b	-51.8	db
B. Pil	ot Level at B	3 IN terminals o	f Control Pa	nel	-47 to -53 d	b	-51.5	_db
		SIG OUT termin SWITCH in A-D			1 -50 +0.25	db	-49.8	_db
D. Pil	lot Level at S	SIG OUT termine SWITCH In B-DI	als of Contr	ol Pane	1 -50 <u>+</u> 0.25 c	lb	-50.0	_db
		iation at SIG O		s of '	+ 1.0 db		7	_db
		iation at SIG O		s of	+1.0 db		7	db
2. BASEBA	ND (Use Do	ata Sheet BRII/8	6 for GA-G	PA Lin	<)		•	
A. Le	vel, 100 Kc	RX			$-34 \pm 0.5$ db		XXX	db
B. Fre	equency Resp 60 k						·xxx	_db
	. 100 K	(c journau)		1 12 1	. `\		XXX	db
	200 k				+ 0.5 db Froi 100Kc Referen		XXX	_db
	350			•	Level	106	XXX	db
	400 k	Co **					XXX	_db
	500 1	Kc.				1 ° V 1 ° V	XXX	_db

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# BIG RALLY II PROJECT

# DATA SHEET

# MW-503A LOS LINK TEST

Ţ.		STATION GA		
	Transmission Path: From Station GA	to STATION GPA		
		EXPECTED	ACTUAL	
3.	ORDER WIRE			
	A. Level, I Kc RX	-20 + 1 dbm	-20	dbm
	B. Frequency Response			
	0.5 Kc		-20.4	dbm
	l Kc		-20.0	dbm
		-2 db, +1 db From		
	4 Kc		-20.1	dbm
	IO Kc		-20.1	dbm
	12 Kc		-20.5	dbm
4.	INTERMODULATION DISTORTION			
	A. One MW-503A Link	Maximum 45 db	48.0	db
5. F	RCVR "A" 48 db RCVR "B" 45.5 db			
	A. Receiver A		-38.1	dbm
	3. Receiver B		-36.8	dbm

# BIG RALLY II PROJECT

## DATA SHEET

# MW-503A LOS LINK TEST

	STATION GA	\(\frac{1}{2}\)
Transmission Path: From Station GA	to Station GPA	
6. NET PATH LOSS	EXPECTED	ACTUAL
A. NPL, Path A	(Refer to following	67.7 db
B. NPL, Path B	list for expected results.)	66.4 db
C. Expected Results	P .	
Test Link	Maximum NPL	
GA-GPA	68.8 db	
GPA-GBA	74.2	
GPA-GIM	60.0	
GPA-GTA	64.5	
GHO-GPE	63.2	
GHO-GAG	62.2	
TID-TIC	66.3	
TKG-TKH-TKA	79.5	
TKA-TKR	65.5	
TKR-TIZ	65.9	
TAL-TKG	73.8	
TDY-TDI	64.5	
		4-35

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BIG RALLY II PROJECT

DATA SHEET

			STATION_	GA	
	Transmission Path: From	Station GA	to STATION_	GPA	
			EXPECTED		ACTUAL
7.	SIGNAL-TO-NOISE RATIO	•			
					75
	A. Receiver A	(Refer to FIG. this procedure f			75 80 db
	B. Receiver B	expected result			75.5 db
	C. Combined				80 db

	DATE 14 JULY 1963
	TESTER Jack 21, Thing
	SJPERVISOR Paul A Clavery on T
QUALIT	TY ASSURANCE Son Randell
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#### BIG RALLY II PROJECT

#### DATA SHEET

				•	241	STATION	GPA		
	Tro	insmission Path:	From Station_	GA	to	STATION	GPA		
1.	DIV	ERSITY TESTS (A	LL CONFIGURA	ations)		EXPECTED		ACTUAL	
	Α.	Pilot Level at A	A IN terminals o	f Control Po	anel	-47 to -53 db	_	52.8	db
	В.	Pilot Level at B	IN terminals of	Control Pa	nel	-47 to -53 db	-	52.7	_db
	C.	Pilot Level at S	SIG OUT termino	als of Contr	ol Pane	el -50 <u>+</u> 0.25db	_	50	db
	D.	Pilot Level at S		ils of Contro	ol Pane	1 -50 <u>+</u> 0.25 db	_	50	_db
	Ε.	Pilot Level <u>vari</u> control panel w	ation at SIG Olith "A" power o		of.	+ 1.0 db	11 -	50	_db
	F.	Pilot Level vari Control Panel v	ation at SIG OU with "B" power o		of	+1.0 db		50	_db
2.	BAS	EBAND (Use Do	ta Sheet BRII/86	for GA-G	PA Lin	k)	•		
	Α.	Level, 100 Kc	RX			$-34 \pm 0.5 \text{ db}$	_	N/A	db
	В.	Frequency Response	onse						
		60 K	(c		1		-1	N/A	_db
		100 K	С		1	. "N		N/A	_db
		200 K	(c			+ 0.5 db From . 100Kc Reference	_	N/A	_db
			= 350KC			Level '	_	N/A	db
		400 K	ic .					N/A	_db
		500 k	(c. )	•			_	N/A/	db

#### BIG RALLY II PROJECT

#### DATA SHEET

		STATION G	PA	_
	Transmission Path: From Station GA	to STATION GP	A	
		EXPECTED	ACTUAL	
3.	ORDER WIRE			
	A. Level, I Kc RX	-20 <u>+</u> 1 dbm	_20	dbm
	B. Frequency Response			
	0.5 Kc		- 20.4	dbm
	. I Kc	0 11 11 11 15	20	dbm
	4 Kc	-2 db, + 1 db From 1 Kc Reference Level	-19.7	dbm
	10 Kc		19,2	dbm
	12 Kc		19.8	dbm
4.	INTERMODULATION DISTORTION	DV		
	A. One MW-503A Link Idle Noise RX A 56 db	RX Maximum 45 db RX		db
5.	RX B 54 db RECEIVED SIGNAL POWER Combined 57 db		od 52	db
	A. Receiver A		34.4	dbm
	3. Receiver B		33.9	dbm

#### BIG RALLY II PROJECT

#### DATA SHEET

		STATION	GPA
	Transmission Path: From Station_	GA to Station	GPA
6.	NET PATH LOSS	EXPECTED MAX. 68.8 db	ACTUAL
in .	A. NPL, Path A	(Refer to following	62.2 db
1	B. NPL, Path B	list for expected results.)	67.7 db
	C. Expected Results		
	Test Link	Maximum NPL	
	GA-GPA	68.8 db	
	GPA-GBA	74.2	
	GPA-GIM	60.0	h /2
	GPA-GTA	64.5	
	GHO-GPE	63.2	
	GHO-GAG	62.2	
	TID-TIC	66.3	
	TKG-TKH-TKA	79.5	
	TKA-TKR	65.5	
	TKR-TIZ	65.9	
	TAL-TKG	73.8	
	TDY-TDI	64.5	
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BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

				STATION_	GPA		
	Transmission Path:	From Station	GA to	STATION	GPA		
				EXPECTED		ACTUAL	
7.	SIGNAL-TO-NOISE	RATIO	Mih	75 db			
	A. Receiver A	(Refer	to FIG.9 of			76	. dp
	B. Receiver B		edure for t	he		76 -75-	db

	DATE	14 July 1963
	TESTER_	Vincent Quinn
	SUPERVISOR	1. Wernson
QUALITY	' ASSURANCE	/ M. Eninha
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Sheet 4 of 4

#### BIG RALLY II PROJECT

#### DATA SHEET

		STATION GENERAL	PA	
	Transmission Path: From Station GAB	to STATION GPA		
١.	DIVERSITY TESTS (ALL CONFIGURATIONS)	EXPECTED	ACTUAL	
	A. Pilot Level at A IN terminals of Control P	anel -47 to -53 db	-50.8	_db
	B. Pilot Level at BIN terminals of Control Pa	anel -47 to -53 db	-50.8	_db
	C. Pilot Level at SIG OUT terminals of Contra with SERVICE SWITCH in A-DISABLE posi		<b>-</b> 50	_db
	D. Pilot Level at SIG OUT terminals of Control with SERVICE SWITCH In B-DISABLE posi	ol Panel -50 +0.25 db	<b>-</b> 50	_db
	E. Pilot Level variation at SIG OUT terminal control panel with "A" power off.	s of , + 1.0 db	49.8	_db
	F. Pilot Level variation at SIG OUT terminal Control Panel with "B" power off.	s of <u>+1.0 db</u>	_ 50	_db
2.	BASEBAND (Use Data Sheet BRII/86 for GA-G	PA Link)	· .	
	A. Level, 100 Kc RX	-34 <u>+</u> 0.5 db	34	_db
	B. Frequency Response			,)
	60 Kc		-34.3	_db
	100 Kc	and the same of th	-34	_db
	200 Kc	+ 0.5 db From 100Kc Reference	33.65	_db
	350KC	Level	33.9	db
	400 Kc		-34.1	db
	500 Kc.		-33.85	db

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#### BIG RALLY II PROJECT

#### DATA SHEET

#### MW-503A LOS LINK TEST

			STATION	GPA
	Transmission Path:	From Station GAB t	o STATION	GPA
			EXPECTED	ACTUAL
3.	ORDEŘ WIRE			
	A. Level, I Kc RX		-20 + 1 dbm	dbm
	B. Frequency Response			
	0.5 Kc			
7,	1 Kc		-2 db, +1 db Fron	
	4 Kc		. Ke kererence Leve	
	· 10 Kc			-20.7 dbm
	. 12 Kc			
4.	INTERMODULATION I	DISTORTION Idle noise		Today
	A. One MW-503A Lin	TOTE 4	Maximum 45 db	Intermod. Xmtr. RX-A 42 db
5. R	eceived signal pow	Cambinad FA	Cor	nbined 42
	A. Receiver A			45.3 dbm
	B. Receiver B			43.2 dbm

Note: Intermodulation does not meet specifications.

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#### BIG RALLY II PROJECT

#### DATA SHEET

	STATION	GPA \
Transmission Path: From Station_	GAB to Station	GPA
6. NET PATH LOSS	EXPECTED	ACTUAL
A. NPL, Path A	(Refer to following	73.2 db
E. NPL, Path B	list for expected results.)	71.1 db
C. Expected Results		
Test Link	Maximum NPL	
GA-GPA	68.8 db	
GPA-GBA	74.2	
GPA-GIM	60.0	
GPA-GTA	64.5	
GHO-GPE	63.2	
GHO-GAG	62.2	
TID-TIC	66.3	
TKG-TKH-TKA	79.5	
TKA-TKR	65.5	
TKR-TIZ	65.9	
TAL-TKG	73.8	
TDY-TDI	64.5	

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DATA SHEET

			STATION	GPA	
	Transmission Path:	From Station	to STATION	GPA	
			EXPECTED	ACTUAL	
7.	SIGNAL-TO-NOISE	RATIO		. M . T	
	A. Receiver A		FIG.9 of	67.5	_db
	B. Receiver B	this proce	dure for the results.)	70.5	db

100	DATE , 17 July 1963
	TESTER Vincent Queinn
	SJPERVISOR 1. Wengend
QUALITY	ASSURANCE M. En.
	GEETA Sefant

BR 11/85

#### BIG RALLY II PROJECT

#### DATA SHEET

		STATION GAB	
	Transmission Path: From Station GAB	to STATION GPA	
1.	DIVERSITY TESTS (ALL CONFIGURATIONS)	EXPECTED	ACTUAL
	A. Pilot Level at A IN terminals of Control Pane	el -47 to -53 db	-511 d
	B. Pilot Level at B IN terminals of Control Pane	l -47 to -53 db	_51.8 d
	<ul> <li>C. Pilot Level at SIG OUT terminals of Control with SERVICE SWITCH in A-DISABLE positio</li> <li>D. Pilot Level at SIG OUT terminals of Control</li> </ul>	n.	_50.0 dl
	with SERVICE SWITCH In B-DISABLE position		50.0 dl
	E. Pilot Level variation at SIG OUT terminals o control panel with "A" power off.	f . <u>+</u> 1.0 db	<b></b> 7 dl
	F. Pilot Level variation at SIG OUT terminals o Control Panel with "B" power off.	f <u>+1.0</u> db	7 dl
2.	BASEBAND (Use Data Sheet BRII/86 for GA-GPA	Link)	
	A. Level, 100 Kc RX	$-34 \pm 0.5$ db	-34.0 dl
	B. Frequency Response 60 Kc		<u>-34.2</u> dl
	, 100 Kc	- N	-34.0 dl
	200 Kc	+ 0.5 db From 100Kc Reference	33.9 db
	CO SOCIONAL DE CONTRACTOR DE C	Level	<u>-31.1</u> db
	400 Kc		-34.1 db
	500 Kc.		<u>-34,2</u> db

#### BIG RALLY II PROJECT

#### DATA SHEET

					STATION_	GAB		_ {
	Transmission Path:	From Station_	GAB	_to	STATION	GPA.		
					EXPECTED		ACTUAL	
3.	ORDER WIRE							
	A. Level, I Kc RX				-20 + I dbm			_dbm
	II. Frequency Respon	se			aha)	-		
	0.5 K	c	-			ng a <del>managan ng managan ng akama</del> g	-21.2	dbm
	I Ko				2 -11- 1-1	J. T	-20.0	_dbm
				1	-2 db, +1 Kc Reference			
	4 K	С					-19.2	_dbm
	10 Kc						-19.8	_dbm
	12 Kc						-20.1	_dbm
4.	NTERMODULATION	DISTORTION	NOTE.		B Tx at G		ombined	
	C. RECEIVER B A. One MW-503A Li	ink			termod was Maximum 45	-	47	db
	B. RECEIVER A				Maximoni 45	GD	<u>48</u> <u>8888</u> X 47	_db
5.	RECEIVED SIGNAL POV	VER						
	A. Receiver A						-46.1	dbm
	3. Raceiver B						-43.2	dbm

#### BIG RALLY II PROJECT

#### DATA SHEET

				STATION GAB	
					(
	Tra	nsmissic	on Path: From Station GAB	to Station GPA	
6.	NET	PATH	LOSS	EXPECTED	ACTUAL
	Α.	NPL,	Path A	(Refer to following	75.7 db
	В.	NPL,	Path B	list for expected results.)	72.8 db
	C.	Exped	eted Results		
			Test Link	Maximum NPL	
			GA-GPA	68.8 db	
			GPA-GBA	74.2	
	*		GPA-GIM	60.0	
			GPA-GTA	64.5	
			GHO-GPE	63.2	
			GHO-GAG	62.2	
			TID-TIC	66.3	
			TKG-TKH-TKA	79.5	
•			TKA-TKR	65.5	
			TKR-TIZ	65.9	
			TAL-TKG	73.8	
			TDY-TD!	64.5	

BR 11/85

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

				STATION	GAB		
	Transmission Path:	From Station	GAB	to STATION_	GPA		
				EXPECTED		ACTUAL	
7.	SIGNAL-TO-NOISE	RATIO				66.5	
	A. Receiver A  B. Receiver B	this pro	to FIG ocedure ed resul	for the		74-72-72	db
	C. COMBINED .					75	_ db

TESTER (1) Schreualus

SUPERVISOR Frank Skopinskie

QUALITY ASSURANCE Standard.

Sheet 4 of 4

#### BIG RALLY II PROJECT

DATA SHEET

.MW-503A LOS LINK TEST

(GA - GPA LINK ONLY)

	(OA	- OFA EITAK CHALTY		
			STATION GA	
Transmission	Path: From Station_	GA	to STATION GPA	
Baseband (	(GA – GPA LINK)		EXPECTED	ACTUAL
Α.	Level, 100 kc RX			
	I) Site GPA		-40 ± 0.5 db	N/A db
	2) Site GA		-34 ± 0.5 db	-31; db
В.	Frequency Respons	se .	4.	
	12 kc	<u> </u>		_34db
	60 kc	./.		-33.9 db
	100 kc			-34 db
	200 kc		+0.5 db From	-33.9 db
	300 kc	į į į	100 kc Reference	_34.1 db
	400 kc		Level	-33.25 db
	500 kc			-33.5 db
		DATE	4. Tuly 1963	
		TESTER	Jul Ho That	
		SUF ERVISOR	Paul J Vaner	port
		QUALITY ASSURANCE	Continuell!	
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#### BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

(GA - GPA LINK ONLY)

					STATION	GPA		
Transmission Po	th: From Station	GA		_ to	STATION	GPA		
Basehand (GA	a – GPA LINK)				EXPECTED		ACTUAL	٠
Α.	Level, 100 kc RX		J.					
	I) Site GPA				-40 ± 0.5 db		40.2	_db
	2) Site GA				-34 <u>+</u> 0.5 db		M/A/	_db
В.	Frequency Respon	se						
	12 kc					*	+ 0.1	_db
	60 kc						+ 0.2	_db
	100 kc						+ 0.1	_db
	200 kc			-	0.5 db From		0.0	db
	300 kc			i 1	00 kc Referen	ce	T 0.3	db
	400 kc			· , I	evel		-0.3	db
	500 kc						-0.2	_db
* Reference I step A Sit	evel used_Fig	-40.2 in	DATE	1	14 July 1963			
			TESTER_)	In 1 7	en Que	nn		
		SU QUALITY AS	JFERVISOR	M.	Mynd Cn'v			-
		Sheet I of I	GEE IA	S)	Pelant.	p.	11 52	

AIDENDUM	Station 1, D.
Transmission Path: From Station	D. to Station 1, 12.
Exciter Serial No. Dj 3 #2	Frequency 360. 99997 MC
MRC-85 AN/ <del>FRC-39</del> EXCITER, RADIO	EXPECTED ACTUAL
1. POWER OUTPUT Power Output	Minimum 18 watts watts
2. CARRIER FREQUENCY Frequency	.001% of assigned 360, 49888 MC
Jacob Lower 1 db point  Upper 1 db point	rion <u>1.9.9</u> MC
Bandwidth	Minimum 1. 5 MC / P MC
4. HF DEVIATION Level at J4	-14 dbm + 0.5 dbmdbm
5. ADJUSTMENT OF FOUR RECEIVE	ERS
6. LF DEVIATION Signal level at J14	-10 dbm <u>+</u> 0.5 dbm - <u>/0.0</u> dbm
7. ORDER WIRE DEVIATION & LEVE Output at J26-J27	-10 dbm + 0.5 dbm - 10.0 dbm
8. PILOT TONE LEVEL AND DEVIATION Radio Pilot Level at J51 Deviation at J14 on S1893	7ION 20 to 35 volts 20 volts -20 dbm + 0.5 dbm dbm
9. DUAL MODULATOR OPERATION Exciter No. 1 Driving Exciter No. 2 Driving	
ĮΩ	DATE O CHAR 10 30  TESTER 1/2 July 10 30  SUPERVISOR 1/2 College  UALITY ASSURANCE 1/2 G 1/2 College
	Sheet 1 of 1

AI DENDUM	Stațio	n_1,D	
Transmission Path: From Station 1	to Station	1.8.	
Exciter Serial No. 0/1/ ±	Frequency 360.	49997	MC
MRC-85			
AN/ENS EXCITER, RADIO	EXPECTED	ACTU	AL '
1. POWER OUTPUT Power Output	9 Minimum 🎏 watts	7.5	watts
2. CARRIER FREQUENCY			
Frequency	.001% of assigned	360.49700	_MC
3. EXCITER RESPONSE AND DEVIA	TION		
Lower 1 db point		69	_MC
Upper 1 db point  Bandwidth	Minimum 1.5 MC	703	_MC
Ballawian			
4. HF DEVIATION			
Level at J4	$-14 \text{ dbm} \pm 0.5 \text{ dbm}$	<del>-14</del>	dbm
5. ADJUSTMENT OF FOUR RECEIVE	ERS	33.J.	Initials
6. LF DEVIATION			
Signal level at Jl4	$-10 \text{ dbm} \pm 0.5 \text{ dbm}$	<u>-10-</u>	_dbm
7. ORDER WIRE DEVIATION & LEVI	CI.		
Output at J26-J27	-10 dbm ± 0.5 dbm	-10	dbm
O DILOT TONE LEVEL AND DEVIA	TION:		
8. PILOT TONE LEVEL AND DEVIA' Radio Pilot Level at J51	20 to 35 volts	21	volts
Deviation at J14 on S1893	$-20 \text{ dbm} \pm 0.5 \text{ dbm}$	-20	dbm
9. DUAL MODULATOR OPERATION		. 0	
Exciter No. 1 Driving	•	<u>1131.</u>	Initials
Exciter No. 2 Driving		- B-A	Initials
	DATE	7. hins 6	3
	TESTER	for dies	1
	SUPERVISOR	P. Plat	frey
$^{\circ}$	UALITY ASSURANCE_	15.6.150	)
	Sheet 1 of 1	-0116	

4	DDENDUM	Statio	on IR-W
•	Transmission Path: From Station	to Station	1D-E
1	Exciter Serial No. 016 1-V	Frequency 392.	The state of the s
	MRU-85 AN/ERC=39 EXCITER, RADIO	EXPECTED	ACTUAL
1	. POWER OUTPUT Power Output	Minimum B watts	
2	CARRIER FREQUENCY Frequency	.001% of assigned	372,4993 MC
	B. EXCITER RESPONSE AND DEVIA'  Lower 1 db point  Upper 1 db point  Bandwidth	TION  Minimum 1. 5 MC	69.2075 MC 70.8995 MC 1.6920 MC
4	4 HF DEVIATION Level at J4	-14 dbm <u>+</u> 0.5 dbm	_14 dbm
	ADJUSTMENT OF FOUR RECEIVE	ERS	RAS Initials
	Signal level at J14	-10 dbm + 0.5 dbm	<u>-10</u> dbm
	ORDER WIRE DEVIATION & LEVE Output at J26-J27	-10 dbm + 0.5 dbm	-10 dbm
	Radio Pilot Level at J51 Deviation at J14 on S1893	TION 20 to 35 volts -20 dbm <u>+</u> 0.5 dbm	21 volts 202 dbm
	Exciter No. 1 Driving Exciter No. 2 Driving	UNSA	Tispacrony Initials Initials
	Ωι	DATE TESTER SUPERVISOR UALITY ASSURANCE Sheet 1 of 1	Marken Lunhal
			x 1/2

#### BRII/16

ADDENDUM	Station IR-W
Transmission Path: From Station 1R-	w to Station ID-E
	Frequency 392. 4999 MC
MRC-85 AN/FRC=39 EXCITER, RADIO	EXPECTED ACTUAL
1. POWER OUTPUT Power Output	Minimum 20-watts 10.2 watts
2. CARRIER FREQUENCY Frequency	.001% of assigned 392.7980 MC
3. EXCITER RESPONSE AND DEVIATI  Lower 1 db point  Upper 1 db point	69.2195 MC 70.7595 MC
Bandwidth	Minimum 1. 5 MC 1. 5400 MC
4. HF DEVIATION  Level at J4	-14 dbm + 0.5 dbmdbm
5. ADJUSTMENT OF FOUR RECEIVER	RS RAS Initials
6. LF DEVIATION Signal level at J14	-10 dbm + 0.5 dbmiodbm
7. ORDER WIRE DEVIATION & LEVEL Output at J26-J27	-10 dbm + 0.5 dbm dbm
	ON 20 to 35 volts 22.5 volts -20 dbm + 0.5 dbm 20.4 dbm
9. DUAL MODULATOR OPERATION Exciter No. 1 Driving Exciter No. 2 Driving	UNSATISPACTORY Initials Initials
Ωυλ	TESTER THE 1965  TESTER THE SUPERVISOR R. Was Low ALITY ASSURANCE R. B. Smooth
	Sheet 1 of 1

Transmission Path: From Stati	on IR-E	to S	tation	10-W	
Exciter Serial No.009	2-H F	requency_	396.4	999	M
AN/FRC-85 EXCITER, RADIO		EXPEC	TED	ACT	UAL
l. POWER OUTPUT Power Output	λ	linimum B	watts	9	watts
2. CARRIER FREQUENCY Frequency		001% of as	signed	396:49	97_MC
3. EXCITER RESPONSE AND I	DEVIATIO	N			
Lower 1 db point Upper 1 db point Bandwidth	N	linimum 1.	5 MC	70.8269 1.6732	МС
4. HF DEVIATION Level at J4	_	14 dbm <u>+</u> 0	), 5 dbm		dbm
5. ADJUSTMENT OF FOUR RE	ECEIVERS	î ,		RAS	Initial
6. LF DEVIATION					
Signal level at J14	-	10 dbm <u>+</u> 0	. 5 dbm	-10	_dbm
7. ORDER WIRE DEVIATION &	LEVEL				
Output at J26-J27		10 dbm + 0	. 5 dbm	-10	_dbm
8. PILOT TONE LEVEL AND	DEVIATIO	Ν.			
Radio Pilot Level at J51		0 to 35 vol	lts	24	_volts
Deviation at J14 on S189	3 -	20 dbm <u>+</u> (	0.5 dbm	-20	_dbm
9. DUAL MODULATOR OPERA Exciter No. 1 Driving Exciter No. 2 Driving	TION	(	UNSATIS	FACTORY	Initial Initial
			DATE	14 DUN	€ 1963
			TESTER_	E Ha	llen
		SUPER	-	C. Was E. R.B. Spec	inecj

#### BRII/16

Exciter Serial No. 010	1-7	Frequency 396.	H 999 M
AN/FRC-85 EXCITER, RADI	0	EXPECTED	ACTUAL
1. POWER OUTPUT Power Output		Minimum 🔀 watts	watts
2. CARRIER FREQUENCY Frequency		. 001% of assigned	396.4988 MC
3. EXCITER RESPONSE AND	DEVIA	TION	
Lower 1 db point Upper 1 db point Bandwidth		Minimum 1.5 MC	69.2365 MC 70.7619 MC 1.5414 MC
4. HF DEVIATION  Level at J4		-14 dbm <u>+</u> 0.5 dbm	-14·3 dbm
5. ADJUSTMENT OF FOUR I	RECEIVE	CRS	RBS Initials
6. LF DEVIATION Signal level at J14		-10 dbm <u>+</u> 0.5 dbm	dbm
7. ORDER WIRE DEVIATION	& LEVE	CL .	
Output at J26-J27		-10 dbm + 0.5 dbm	<u>-10</u> dbm
8. PILOT TONE LEVEL AND	DEVIA	TION	
Radio Pilot Level at J		20 to 35 volts	24 volts
Deviation at J14 on S18		$-20 \text{ dbm} \pm 0.5 \text{ dbm}$	dbm
9. DUAL MODULATOR OPER Exciter No. 1 Driving	RATION	UNSAT	ISFACTORY Initials
Exciter No. 2 Driving			Initials
		DATE	6 14 June 196
		TESTER SUPERVISOR	E Hallen

#### Ic-n.

Transmission Path: From Station 7 I	C ½ to Station IR	
71 CON 100 100 100 100 100 100 100 100 100 10	F., 500	M
Exciter Serial No. 003 #2	Frequency 367.500	NI
MR1-86		
AN/FREST EXCITER, RADIO	EVDECTED	TUAL
	EXPECTED AC	TOAL
1. POWER OUTPUT	6	
Power Output	Minimum W watts	watts
Tower Output	Minimum Watts	10
2. CARRIER FREQUENCY		5009
Frequency	. 001% of assigned 367.	
3. EXCITER RESPONSE AND DEVIAT	ION III	<i>i.</i>
Lower 1 db point	_68_6	MC
Upper 1 db point	#1- 10.0 He=70 8	MC
Bandwidth	Minimum 1. 5 MC 2.2	MC
4. HF DEVIATION	14 22 4 6 5 22	
Level at J4	$-14 \text{ dbm} \pm 0.5 \text{ dbm} -11$	dbm
5. ADJUSTMENT OF FOUR RECEIVED	PS	Initial
5. ADJUSTMENT OF EXAM RECEIVE		IIIIII
6. LF DEVIATION		
Signal level at J14	-10 dbm + 0.5 dbm -10	dbm
7. ORDER WIRE DEVIATION & LEVE	L	
Output at J26-J27	-10 dbm + 0.5 dbm -10	dbm
8. PILOT TONE LEVEL AND DEVIAT		
Radio Pilot Level at J51	20 to 35 volts 21	volts
Deviation at J14 on S1893	$-20 \text{ dbm} \pm 0.5 \text{ dbm}$ , $-20$	dbm
9. DUAL MODULATOR OPERATION		
Exciter No. 1 Driving		Initial
Exciter No. 2 Driving	-	Initial
없었다. 그리는 얼마 하이네요? 첫 사람이라		
	DATE 16 Ju	ING 63
		iein p
	SUPERVISOR JELL	laste.
QU	ALITY ASSURANCE William	R. Wet
	Sheet 1 of 1	-5

#### BRII/16

Ţr	ansmission Path: From Station I	to Station	GK
1	cciter Serial No. 008 #1	Frequency 360.5	M
EX		Frequency 360.5	AVI.
-	MRC-85		
AN	N/FRC-39 EXCITER, RADIO	EXPECTED	ACTUAL
			•
1.	POWER OUTPUT	Minimum 10 watts	10 watts
	Power Output	William do watts	10 watts
2.	CARRIER FREQUENCY		, de la companya della companya della companya de la companya della companya dell
	Frequency	.001% of assigned	360.5004 MC
			33
3.	EXCITER RESPONSE AND DEVIAT	CION	250 0 200
	Lower 1 db point		359.2 MC 361.5 MC
	Upper 1 db point  Bandwidth	Minimum 1.5 MC	1.88 MC
	Dallawidii		- 1100 410
4.	HF DEVIATION		
	Level at J4	-14 dbm + 0.5 dbm	14dbm
			20
5.	ADJUSTMENT OF FOUR RECEIVE	RS	AS Initial
6	LF DEVIATION		
0.	Signal level at J14	-10 dbm + 0.5 dbm	-10 dbm
	0.6 20,01 00 0.2		
7.	ORDER WIRE DEVIATION & LEVE		
	Output at J26-J27	-10 dbm + 0.5 dbm	-10.2 dbm
		TON	
8.	PILOT TONE LEVEL AND DEVIAT		25 volts
	Radio Pilot Level at J51 Deviation at J14 on S1893	20 to 35 volts -20 dbm + 0.5 dbm	25 volts -20 dbm
		20 doni 3 0.5 doni	dom
9.	DUAL MODULATOR OPERATION		Initial
	Exciter No. 1 Driving Exciter No. 2 Driving		Initial
	DACITED ING. & DITYING		
		DATE	JUN 2 2 1963
		TESTER	Rodendell,
. h		SUPERVISOR 7	2 Shelperide
	Ωυ	JALITY ASSURANCE W	Min 1 R Dect
		Sheet 1 of 1	
		GEETA Stan	Baston dalla

ADDENDUM	Station_	IC EAST
Transmission Path: From Station	IC to Station	GK
Exciter Serial No. 90% # 2	Frequency 360.50	Q₫ MC
AN/FROM EXCITER, RADIO	EXPECTED	ACTUAL
1. POWER OUTPUT Power Output	Minimum W watts	10 watts
2. CARRIER FREQUENCY Frequency	.001% of assigned	360.5172MC
3. EXCITER RESPONSE AND DEVIATE Lower 1 db point Upper 1 db point Bandwidth	Minimum 1.5 MC	359.75 MC 361.32 MC 1.57 MC
4. HF DEVIATION Level at J4	-14 dbm <u>+</u> 0, 5 dbm	-14.0 dbm
5. ADJUSTMENT OF FOUR RECEIVE	CRS	RS_Initials
6. LF DEVIATION Signal level at J14	-10 dbm <u>+</u> 0.5 dbm	-10.0 dbm
7. ORDER WIRE DEVIATION & LEVE Output at J26-J27	-10 dbm <u>+</u> 0.5 dbm	dbm
8. PILOT TONE LEVEL AND DEVIATION Radio Pilot Level at J51 Deviation at J14 on S1893	FION  20 to 35 volts  -20 dbm <u>+</u> 0, 5 dbm	25.5 volts -20 dbm
9. DUAL MODULATOR OPERATION Exciter No. 1 Driving Exciter No. 2 Driving		ρς Initials Initials
	DATE	JUN 2 2 1963
QI	SUPERVISOR JALITY ASSURANCE	Mix MX (10 mille)
	Sheet l of l	Rosta Solas

ADDENDUM	Station G.K.
Transmission Path: From Station	G.K. to Station I.C.
Exciter Serial No. 001	Frequency 389500 MC
AN/FRESS EXCITER, RADIO	EXPECTED ACTUAL
Used Adlina Proceeding	ges teas
1. POWER OUTPUT  Power Output	Minimum 19 watts // 2 watts
2. CARRIER FREQUENCY	387,497,620
Frequency	.001% of assigned 360 MC
3. EXCITER RESPONSE AND DEV	VIATION
Lower 1 db point	\$ 69.25 .75 MC
Upper 1 db point	70.75 MC
Bandwidth	Minimum 1.5 MC 1.50 MC
4. HF DEVIATION	실용하다 바다 (N. 20)를 어디뎠어 : (1995 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1
Level at J4	-14 dbm + 0.5 dbm 3.5 - 13.6 dbm
5. ADJUSTMENT OF FOUR RECE	CIVERS * DBInitials
6. LF DEVIATION	
Signal level at J14	-10 dbm + 0.5 dbm 10 -10 dbm
7. ORDER WIRE DEVIATION & L	
Output at J26-J27	$-10 \text{ dbm} \pm 0.5 \text{ dbm}$
8. PILOT TONE LEVEL AND DEV	
Radio Pilot Level at J51	20 to 35 volts # 24.7 24.7 volts
Deviation at J14 on S1893	-20 dbm + 0.5 dbm
9. DUAL MODULATOR OPERATI	
Exciter No. 1 Driving	///A Initials
Exciter No. 2 Driving	$\frac{N/A}{2}$ . Initials
	DATE 23 VINE 13
	TESTER SALES
	SUPERVISOR Linell Y. Carles
	QUALITY ASSURANCE - 196 Jacon
	Sheet 1 of 1

	ADDENDUM	Station_(	5.K.
Wi	Transmission Path: From Station	K, to Station 1. C	
	Exciter Serial No. 005 32	Frequency 38950	MC
	USED ADLER PACEDUL	EXPECTED	ACTUAL
	1. POWER OUTPUTFOR CHIEBRATING METE	ens. 9	
	Power Output	Minimum 🗃 watts	13 watts
	2. CARRIER FREQUENCY Frequency		34,449,902 98 MC
	riequency		7 6
	3. EXCITER RESPONSE AND DEVIAT	NOI	75 MC
	Upper 1 db point Bandwidth	Minimum 1.5 MC	MC MC
	4. HF DEVIATION Level at J4	-14 dbm <u>+</u> 0.5 dbm	14dbm
	5. ADJUSTMENT OF FOUR RECEIVE	RS	BB Initials
	6. LF DEVIATION Signal level at J14	-10 dbm <u>+</u> 0.5 dbm	/Odbm
	7. ORDER WIRE DEVIATION & LEVE Output at J26-J27	-10 dbm <u>+</u> 0.5 dbm	/0_dbm
	8. PILOT TONE LEVEL AND DEVIATE Radio Pilot Level at J51 Deviation at J14 on S1893	7ION 20 to 35 volts -20 dbm <u>+</u> 0.5 dbm	9.5.3 volts -20 dbm
	9. DUAL MODULATOR OPERATION Exciter No. 1 Driving Exciter No. 2 Driving		Initials
		DATE 7	3 JUNE 1-3
	ot	JALITY ASSURANCE	1. C. KARL

Sheet 1 of 1

	ADDENDUM	Station 6,K.	
l l	Transmission Path: From Station 6, K	to Station G, A.	
	Exciter Serial No. 006 005	Frequency 382.500. MC	The second
	MRE-85 AN/FRG-39 EXCITER, RADIO	EXPECTED ACTUAL	
	1. POWER OUTPUT Power Output	Minimum 10 watts 9 9,6 watts	
	2. CARRIER FREQUENCY Frequency	382.500158 382.502083 .001% of assignedMC	5
	3. EXCITER RESPONSE AND DEVIATI  Lower 1 db point  Upper 1 db point  Bandwidth	Minimum 1.5 MC 7.5 / 7.5 MC 7.5 / 7.5 MC	
	4. HF DEVIATION Level at J4	-14 dbm + 0.5 dbm - 13.5 -13.7 dbm	
	<ul><li>5. ADJUSTMENT OF FOUR RECEIVER</li><li>6. LF DEVIATION         Signal level at J14</li></ul>	-10 dbm + 0.5 dbmdbm	
	7. ORDER WIRE DEVIATION & LEVEI Output at J26-J27	-10 dbm + 0.5 dbm -10 -10 dbm	
	8. PILOT TONE LEVEL AND DEVIATI Radio Pilot Level at J51 Deviation at J14 on S1893	ION  20 to 35 volts  -20 dbm + 0.5 dbm  -19.5 -20.5 -20.5 -20.	
	9. DUAL MODULATOR OPERATION Exciter No. 1 Driving Exciter No. 2 Driving Exciter #2's REAdings ARE TYPICAL OF	Initials Initials	
E.	XCITERTI ON All 4 RECEIVERS	TESTER ASSURANCE 13.6 Beson	1-
		Shoot 1 of 1	

1		
GA to Station	GK	
		199 (44.5
Frequency 366.	.5	M(
EXPECTED	ACT	JAL
Minimum & watts	9.5	watts
.001% of assigned	366.5009	MC
TION		
Minimum 1.5 MC	.470 .616	MC MC MC
-14 dbm <u>+</u> 0.5 dbm	-14	dbm
ERS	WDT	_Initials
-10 dbm <u>+</u> 0.5 dbm	_9.9	dbm
EL		
	-10.3	dbm
TION 20 to 35 volts -20 dbm <u>+</u> 0.5 dbm	22.9	_volts _dbm
		Initial: Initial:
TESTER SUPERVISOR UALITY ASSURANCE	M.K. Tollo	1963
	Frequency 366.  EXPECTED  Minimum for watts  .001% of assigned  TION  Minimum 1.5 MC  -14 dbm ± 0.5 dbm  ERS  -10 dbm ± 0.5 dbm  EL  -10 dbm ± 0.5 dbm  TION  20 to 35 volts -20 dbm ± 0.5 dbm  WILL WORK MANUALLY OF MILL W	### EXPECTED ACTU  Minimum in watts 9.5  .001% of assigned 366.5009  TION .470 .616  Minimum 1.5 MC 1.086  -14 dbm + 0.5 dbm -14  ERS WDT  -10 dbm + 0.5 dbm -9.9  EL -10 dbm + 0.5 dbm -10.3  TION 20 to 35 volts 22.9 -20 dbm + 0.5 dbm -20.2  WILL WORK MANUALLY ONLY WDT  WILL WORK MANUALLY ONLY WDT  TESTER 211  SUPERVISOR 10.10  UALITY ASSURANCE 1.00  WUALITY ASSURANCE 1.00  WUALITY ASSURANCE 1.00  WILL WORK MANUALLY ONLY WDT  UALITY ASSURANCE 1.00  WUALITY ASSURANCE 1.00  WUALITY ASSURANCE 1.00  **COUNTY **COUNTY WDT  **COUNTY WD

GEETA

#### BRII/16

ADDENDUM	Station_	GA MRC-85
Transmission Path: From Station (	GA to Station GK	
Exciter Serial No. Oll (2H)	Frequency 366.5	MC
MRC-85 AN/ERC=39 EXCITER, RADIO	EXPECTED	ACTUAL
1. POWER OUTPUT Power Output	Minimum B watts	
2. CARRIER FREQUENCY Frequency	.001% of assigned	366.5004 MC
3. EXCITER RESPONSE AND DEVIA  Lower 1 db point  Upper 1 db point	TION	.784 MC
Bandwidth '	Minimum 1.5 MC	1.784_MC
4. HF DEVIATION Level at J4	-14 dbm <u>+</u> 0.5 dbm	<u></u>
5. ADJUSTMENT OF FOUR RECEIV	ERS	WDT Initials
6. LF DEVIATION Signal level at J14	-10 dbm <u>+</u> 0.5 dbm	_10dbm
7. ORDER WIRE DEVIATION & LEV. Output at J26-J27	EL -10 dbm <u>+</u> 0.5 dbm	_ <u>10</u> _dbm
8. PILOT TONE LEVEL AND DEVIA Radio Pilot Level at J51 Deviation at J14 on S1893		21.5 volts -20 dbm
9. DUAL MODULATOR OPERATION Exciter No. 1 Driving W Exciter No. 2 Driving		WDT Initials WBT Initials
Q	DATE TESTER SUPERVISOR UALITY ASSURANCE Sheet 1 of 1	July 8 1963  Tyl Holang y All  arckondell
	GEEIA La	sextal Legist

BR II/12

# FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET AN/MRC-85 STATION TEST /OKWAMP.

			STATION	1,72.	
Transmission Path: From	Station	7).	to Station )	R	
// KW Amplifier Serial	No.#//	1/2	Frequency 3b	0.49997	MC
Exciter Serial No. 014/			-		. (CES).
AN/MRC-85 POWER AMPL	IFIER, RA	DIO			
		E	KPECTED	ACTUAI	
		1 KW	10 KW	•	
1. INPUT POWER	Min. 6	watts	6 watts	6.5	_watts
2. OUTPUT POWER	Min. 1	KW	10 KW	10 HW	watts
3. REFLECTED POWER	Max. 2	28 watts	280 watts	160	watts
4. VSWR	Max.	1.40	1.40	1.29	
5. FAULT RECYCLING				220	_Initials
6. KLYSTRON COOLANT F	LOW	Min	. 17 GPM	3/	_GPM

## FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET AN/MRC-85 STATION TEST

BR II/12

			STATION	10	
				10	çi.
Transmission Path: From	Station_	10	to Station_	IR	
/O KW Amplifier Serial	No. # 2	014	Frequency 3/	D.49997	_MC
Exciter Serial No.					rCa)
AN/MRC-85 POWER AMPL	IFIER, F	RADIO			,,,,,,,
		E	XPECTED	ACTUAL	
		1 KW	10 KW		
1. INPUT POWER	Min.	6 watts	6 watts	<u> </u>	watts
2. OUTPUT POWER	Min.	1 KW	10 KW	ICK's	watts
3. REFLECTED POWER	Мах.	28 watts	280 watts	180	watts
4. VSWR	Max.	1.40	1.40	1.31	
5. FAULT RECYCLING				10	lnitials
6. KLYSTRON COOLANT F	LOW .	Min	. 17 GPM	18.5	GPM
			DATE	JUNE, 6	3
			TESTER	25 Hel	Con
				25. 14.6	Lan.
		OUALITY	ASSURANCE	1261/20	112

#### BR II/12

## FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET AN/MRC-85 STATION TEST

			STATION_	1R-W	
Transmission Path: From	Station_	ir.w	to Station	ID-E	1.1
10 KW Amplifier Serial	No. 016	2-H	Frequency	392.4999	MC
Exciter Serial No. 015					
AN/MRC-85 POWER AMPLE	IFIER, F	RADIO			
		EX	(PECTED	ACTUA	Ĺ
		1 KW	10 KW		
1. INPUT POWER	Min.	6 watts	6 watts	(5.5)	watts
2. OUTPUT POWER	Min.	1 KW	10 KW	10.5 K	watts
3. REFLECTED POWER	Max.	28 watts	280 watts	170	watts
4. VSWR	Max.	1.40	1.40	1.30	<u>.</u>
5. FAULT RECYCLING				RAS.	_Initials
6. KLYSTRON COOLANT F	LOW.	Min.	. 17 GPM	29.8	_GPM

DATE JONE 11, 1963

TESTER M. Lugshart

SUPERVISOR R. D. Lugshart

QUALITY ASSURANCE R.B. Sacer

RR C

#### BR II/12

## FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET AN/MRC-85 STATION TEST

		STATION_	IR-W
Transmission Path: From	Station IR-W	to Station 10	- E
10 KW Amplifier Serial	No. 015 1-V	Frequency 3	92.4199 MG
Exciter Serial No. 016	1-7		
AN/MRC-85 POWER AMPL	IFIER, RADIO	11	
	E	XPECTED	ACTUAL
	1 KW	10 KW	· ·
1. INPUT POWER	Min. 6 watts	6 watts	10 watts
2. OUTPUT POWER	Min. 1 KW	10 KW	10 K watts
3. REFLECTED POWER	Max. 28 watts	280 watts	
4. VSWR	Max. 1.40	1. 40	1.03
5. FAULT RECYCLING			RBS Initials
6. KLYSTRON COOLANT F	LOW Min	. 17 GPM	29.5 GPM

DATE		JUNE	1963
TESTER	m x	Peighe	
supervisor	6	/	5)
QUALITY ASSURAN	CE RB	Sour	/
	w/	RC	

## FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET AN/MRC-85 STATION TEST

			STATION_	IR-E	
Transmission Path: From	Station_	I'R-E	to Station_	10-W	
10 KW Amplifier Serial	No. 010	2-H	Frequency	396.4999	MC
Exciter Serial No. 009		•			~~~
AN/MRC-85 POWER AMPLI	FIER, F	ADIO			
		E	KPECTED	ACTUA	L
		1 KW	10 KW	•	
1. INPUT POWER	Min.	6 watts	6 watts	_6_	watts
2. OUTPUT POWER	Min.	1 KW	10 KW	105 k	_watts
3. REFLECTED POWER	Max.	28 watts	280 watts	_10.0	watts
4. VSWR	Max.	1.40	1.40	1.06	1.06
5. FAULT RECYCLING				RBS	_Initials
6. KLYSTRON COOLANT F	LOW .	Min	. 17 GPM	31_	_GPM

TESTER E Hally

SUPERVISOR P. Was Levier

QUALITY ASSURANCE R. B. Spear

&R. P.

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## FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET

BR II/12

AN/MRC-85 STATION TEST

			STATION_	IR-E
Transmission Path: From Sta	tion_	IR-E	to Station_	10-W
io KW Amplifier Serial No	009	-1-V	Frequency	396.4999 MC
Exciter Serial No. 010				
AN/MRC-85 POWER AMPLIFI	ER, F	RADIO		
		E	XPECTED	ACTUAL
		1 KW	10 KW	6 WATE.
1. INPUT POWER	Min.	6 watts	6 watts	watts ?
2. OUTPUT POWER	Min.	1 KW	10 KW	10 K watts
3. REFLECTED POWER	Max.	28 watts	280 watts	120 watts
4. VSWR	Max.	1.40	1.40	1.25
5. FAULT RECYCLING				RBS Initials
6. KLYSTRON COOLANT FLO	w	Min	. 17 GPM	

DATE // June 63

TESTER E Lalle

SUPERVISOR RNS

QUALITY ASSURANCE R. B. Scan

& R P

## FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET AN/MRC-85 STATION TEST

			STATION	I IC V	VEST
Transmission Path: From St			to Station_	IR	
10 KW Amplifier Serial N		#1 #2	Frequenc	у 367.5	MC
	008		and the same and the		
AN/MRC-85 POWER AMPLIF	TER, F	RADIO		Access of the Ac	
		E>	RPECTED	AC	CTUAL
		1 KW	10 KW		
1. INPUT POWER	Min.	6 watts	6 watts	Kly.#1 Kly.#2 Kly.#1	7 Watts (5) watts 10 KW
2. OUTPUT POWER	Min.	ikw	10 KW	Kly.#2	10 Kwatts
3. REFLECTED POWER	Маж.	28 watts	280 wat	Kly.#1 tRly.#2	100 watts
4. VSWR	Max.	1. 40	1.40	Kly.#1 Kly.#2	1.22 VSWR 1.22 VSWR
5. FAULT RECYCLING	/#*				Initials
6. KLYSTRON COOLANT FL	OW .	Min.	. 17 GPM	Kly.#1 Kly.業2	30 31 GPM
	, v				,
			DATE	16 Ju	ING 63
			TESTER	I	Decker
		SUPE	RVISOR	FALLY	yarllo
		QUALITY	ASSURAN	CELLIN	In R. Kits

	•		STATION_	IC	
Transmission Path: From St	ation_	ic	to Station	GK	1.
10 KW Amplifier Serial N	v 10. 017	<b>н</b> & 006	Frequency	360.5	MC
Exciter Serial No. 008 & 007	7		-		
AN/MRC-85 POWER AMPLIE	TIER, R	ADIO .	A STATE OF THE PARTY OF THE PAR	,	
		E	XPECTED	ACT	UAL
Site IC has 10 KW Amp. ON	LY	1 KW	10 KW	. <b>∨</b> 017	006
1. INPUT POWER	Min.	6 watts	6 watts	8	9. Evatts
2. OUTPUT POWER	Min.	1 KW	10 KW	10	10watts
3. REFLECTED POWER	Мах.	28 watts	280 watts	180	-20 watts
4. VSWR	Max.	1.40	1.40	1.31	1.22
5. FAULT RECYCLING				K	C Initial
6. KLYSTRON COOLANT FL	ow ·	Min	. 17 GPM	-31_	30 <b>G</b> PM

TESTER Philipselo,
SUPERVISOR FAMILIE ROS

GEEIA Scobert X

BR II/12

		STATION (	5.K.	
Transmission Path: From S	station 6 K t	o Station	.C.	
/ O KW Amplifier Serial	No. 002	Frequency 3	89500.	мс
Exciter Serial No. 00	5 =12			
AN/MRC-85 POWER AMPLI	FIER, RADIO	ner og reministere å en krendere oder som måre kannt hag blanderenne å vælgels E		
	EX	PECTED	ACTUAL	L
	1 KW	10 KW	•	
1. INPUT POWER	Min. 6 watts	6 watts		_watts
2. OUTPUT POWER	Min. 1 KW	10 KW	10/1	watts
3. REFLECTED POWER	Max. 28 watts	280 watts	250	_watts
4. VSWR	Max. 1.40	1.40	1.38	-
5. FAULT RECYCLING			JEG-13	Initials
6. KLYSTRON COOLANT F	LOW Min.	17 GPM	29.5	_GPM

DATE 24 JUNE 63	
TESTER FC Shore Ty	
SUPERVISOR Justell & Partin	-
JALITY ASSURANCE 15 8 15000	

GIK- W

STATION (FIK. Transmission Path: From Station G.K. to Station I.C. 10 KW Amplifier Serial No. 001 Frequency 389500 MC Exciter Serial No. pp1 #/ AN/MRC-85 POWER AMPLIFIER, RADIO EXPECTED ACTUAL 1 KW 10 KW 1. INPUT POWER Min. 6 watts 6 watts 10 KW Min. 1 KW 2. OUTPUT POWER 10 /1 watts Max. 28 watts 280 watts 3. REFLECTED POWER 40 watts Max. 11.40 1.40 4. VSWR 1993 Initials 5. FAULT RECYCLING 6. KLYSTRON COOLANT FLOW Min. 17 GPM 29 GPM

DATE 24 JUNE 63	
TESTER FC Thanks IV	
SUPERVISOR Duradle Colley	
UALITY ASSURANCE 10. E. DOLLO	-

			STATION_(	FIK.	
				~ 0	
Transmission Path: From	Station_(	71K . to	o Station_(	TH.	
/D KW Amplifier Serial			Frequency		MC
Exciter Serial No. 006	005				
AN/MRC-85 POWER AMPL	IFIER, R	ADIO			
		EX	PECTED	ACT	<b>UAL</b>
		1 KW	10 KW	PA	PA 2
1. INPUT POWER	Min.	6 watts	6 watts	bib	6 watts
2. OUTPUT POWER	Min.	1 KW	10 KW	IDK	IDK watts
3. REFLECTED POWER	Max.	28 watts	280 watts	35	90 watts
4. VSWR	Max.	1.40	1.40	11/3	121
5. FAULT RECYCLING				B83	Maitial:
6. KLYSTRON COOLANT F	LOW	Min.	17 GPM	305	30.GPM

TESTER J. J. Supervisor T. Contraction

QUALITY ASSURANCE D. E. Beso

			STATION_	GA M	RC-85	
Transmission Path: From St	tation	GA	to Station_	GK		
10 KW Amplifier Serial N	lo. 01	8 17	Frequency	366	•5	MC
Exciter Serial No. 012						(PG2)
AN/MRC-85 POWER AMPLIE	FIER, R	RADIO				
		j. E	XPECTED		ACTUA	L .
		1 KW	10 KW			
1. INPUT POWER	Min.	6 watts	6 watts		13.6	watts
2. OUTPUT POWER	Min.	1 KW	10 KW		10,000	watts
3. REFLECTED POWER	Max.	28 watts	280 watts		170	_watts
4. VSWR	Max.	1.40	1.40		1.30	- 2
5. FAULT RECYCLING					WDT	_Initials
6. KLYSTRON COOLANT FL	ow ·	Min	. 17 GPM		30	GPM

D	ATE 10 July 1963
TES	TER MIL FATE
SUPERVISO	OR Paul Managers
QUALITY ASSU	Le C. Madd
GEEL	A Robertal Logle

		STATION G	A MRC-85
Transmission Path: From	Station GA	to Station_	GK
10 KW Amplifier Serial	No. 014 #2F	Frequency	366.5 MC
Exciter Serial No. 011 #	2H		
AN/MRC-85 POWER AMPL	IFIER, RADIO		
		EXPECTED	ACTUAL
	1 K	10 KW	
1. INPUT POWER	Min. 6 watt	s 6 watts	11.6 watts
2. OUTPUT POWER	Min. 1 KW	10 KW	10,000 watts
3. REFLECTED POWER	Max. 28 wa	tts 280 watts	32 90 watts
4. VSWR	Max. 1.40	1.40	1.12
5. FAULT RECYCLING			WDT Initials
6. KLYSTRON COOLANT E	LOM .	Min. 17 GPM	GPM

DATE 10 July 1963

TESTER W.D. Tets

SUPERVISOR fand Allaway at a grander of the Color of the Co

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### FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

BR 11/13

DATA SHEET

AN/MRC-85 STA	MOIT	TEST
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REC. #11 5/N DES 000

STATION /D Transmission Patéh: Station to Station RECEIVER GAIN EXPECTED ACTUAL RF-Amplifier and Converter Minimum 40 db · Parametric Amplifier & Converter Minimum 33 db RECEIVER SENSITIVITY 2.5 Max - 3UV Signal Required Paramp. For 20 db Quieting RF Amp. Max. 4uv DC CONTROL VOLTAGE 3. DC Control Voltage -35 volts + 3.5 DIVERSITY COMBINER Rec A db # 3.415 db Receiver Outputs (Vertical) + 2 db of each other Receiver Outputs (Horizontal) + 2 db of each other Receiver A (V) Reference 34.0 db Reference 3 35,5 db Receiver B (V) AT LEAST 1.565 Combined Equal=to-or less 2,25 db than Rec A or Rec B H2-34,75 db Receiver A (H) Reference Reference AT Lens 7: 1.5 db Equal to or less Receiver B (H) 114-34.0 db Combined 2.0 dla than Rec A, or Rec B RECEIVER PILOT TONE Initials 5. Max. 1.40+ 1,5 nc ANTENNA SYSTEM VSWR DATE TESTER

Sheet I of I

SUPERVISOR QUALITY ASSURANCE

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#### DATA SHEET

#### AN/MRC-85 STATION TEST

	STATION (, I)
Transmission Patch: Station j,	R. to Station 1, D.
I. RECEIVER GAIN	EXPECTED ACTUAL
-RF Amplifier and Converter	Minimum 40 dbdb
· Parametric Amplifier & Conver	ter Minimum 33 db N/A · db
2. RECEIVER SENSITIVITY	
Signal Required Paramp.	Max. 300 2-35 UV
for 20 db Quieting RF Amp.	Max. 4uv
3. DC CONTROL VOLTAGE	
DC Control Voltage	-35 volts + 3.5 - 35 volts
4. DIVERSITY COMBINER	Rec A Rec B
Receiver Outputs (Vertical) ±	
Receiver Outputs (Horizontal)	2 db of each other 2 4,0 . db 4 4 5 db
Receiver A (V)	Reference #11 34.0 db
Receiver B (V)	Reference #13 35.5 db
Combined	ATherst 1.5db  Equal to or less than Rec A or Rec B
Page A (H)	Reference 3/3 34/57/= db
Receiver A (H)	
Receiver B (H)  Combined	Reference AT Lass 115 16 # 340 db Equal to or, less
Companied	than Rec A, or Rec B
5. RECEIVER PILOT TONE	<u> 1488 . Initials</u>
6. ANTENNA SYSTEM VSWR	Max. 1.40 + 1.5 MC 134
	DATE B. June 153 TESTER
	SUPERVISOR : (28th Sheller
	QUALITY ASSURANCE YS & SAME

Sheet I of I

BR 11/13 Prec7/3 5/N 033.

#### DATA SHEET

#### AN/MRC-85 STATION TEST

		STATIO	on 1.7)	
Transmission Patch: Station_	1,8	to Station_	1, D.	
I. RECEIVER GAIN	,	EXPECTED		ACTUAL
RF Amplitter and Conven	er	Minimum 40 c	lb	db
· Parametric Amplifier & C	onverter	Minimum 33 c	lb <i>N/A</i> ·	db
2. RECEIVER SENSITIVITY				
Signal Required Paramp.		Max30V	1.85	·uv
Eac 20 db Quieting RF Ar	np.	Max. 4uv		UV
3. DC CONTROL VOLTAGE				
DC Control Voltage		-35 volts ± 3.	5 <u> </u>	volts
4. DIVERSITY COMBINER		.,		
Receiver Outputs (Vertice	al) <u>+</u> 2 db of		Rec A 4.0 db	Rec B 3 4.5 db
Receiver Outputs (Horizo	ntal) ± 2 db c	of each other#/ %	4.0 db	14 4.5. db
Receiver A (V)		Reference	211	34.0.db
Receiver B (V)		Reference	1/3	35.5 db
Cambined		Equal-to-or les than Rec A or l	S .	2-35 db
Receiver A (H)	. 1	Reference	42	34.75 db
Receiver B (H)		Reference	2/4	34.0 db
Combined		Equal to or les	SS	2.0 c/t
5. RECEIVER PILOT TONE				195 Initials
6. ANTENNA SYSTEM VSWR		TESTER SUPERVISOR	CEPTOP JUNE 65, B. J. S.	1.31
	QUALI	TY ASSURANCE	9 900 C	

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## FEDERAL ELECTRIC CORPORATION BIG RALLY 11 PROJECT

BR 11/13 FIEC #14 S/N 003.

DATA SHEET

#### AN/MRC-85 STATION TEST

		STATION_	10	
Transmission Patch: Station	IR.	to Station //	)	
I. RECEIVER GAIN		EXPECTED		ACTUAL
RE Amplifier and Converter		Minimum 40 db		db
· Parametric Amplifier & Cor	verter	Minimum 33 db	14/19.	db
2. RECEIVER SENSITIVITY				
Signal Required Paramp.		2,5 Max3uv	1.85	UV
-For 20 db Quiering RF Amp		Max. 4uv		UV
3. DC CONTROL VOLTAGE		ř.		
DC Control Voltage		-35 volts + 3.5	- 35	volts
4. DIVERSITY COMBINER		.,	,	
Receiver Outputs (Vertical)	+ 2 db of e	ach other 4/ 1 4.0	db 7/3	Rec B 4.5 db
Receiver Outputs (Horizont	al) + 2 db of	each other 2 . 4.0	) db <sup>7/</sup> /	1 4.5 db
Receiver A (V)		Reference	-11 ( <u> </u>	34/10 db
Receiver B (V)		Reference AT LANST 1.5 16	#13 _	3,5,6 db
Combined		Equal to or less than Rec A or Rec B		2.25 db
Receiver A (H)		Reference	1/2 -3	4.75 db
Receiver B (H)		Reference A7 Lenst 1.5 d		
Combined	, i	Equal to or less than Rec A or Rec B	9 /	2.0.0/1
5. RECEIVER PILOT TONE		, a	,	3 S - Initial:
		Max. 1.40 ± 1.5 M		3
6. ANTENNA SYSTEM VSWR		AT CENT	·	
		DATE S Clark	15 /2 23	
		UPERVISOR , P.E.	Herb bri	-1
	QUALITY	ASSURANCE 10 C	Jorin .	
		$\sim$	RP	12.71
	Sheet Lof L			5-31

#### BR 11/13

#### FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

RECEIVE	DATA SHEET		
SERIAL	# 029 AN/MRC-85 STATION	N TEST	
		STATION	IR-W
Transn	nission Patch: Station   D-E	to Station 11	R_ W
1. R	ECEIVER GAIN	EXPECTED	ACTUAL
	RF-Amplifier-and Converter-	Minimum 40 db	db
	Parametric Amplifier & Converter	Minimum 33 db	db
2. R	Signal Required Paramp. For 20db Querron	2.5 - Max. 3uv	2,3 uv
	For 20 db Quieting RF Amp.	Max. 4uv	uv
3.	DC CONTROL VOLTAGE		
	DC Control Voltage	-35 volts + 3.5	-35 volts
4. D	IVERSITY COMBINER	.,	0
	Receiver Outputs (Vertical) + 2 db of each	nother #1 Rec.A	Rec 8 db7/3 10.5 db
•	Receiver Outputs (Horizontal) ± 2 db of eac	h other #4 9	db#2 67db
	Receiver & (V) /	Reference	195 db
	Receiver B (V) 3	Reference	20, db
	Combined MIN 15 db Noise	At least 1.5 Equal to or less than Rec A or Rec B	<u>7,5</u> db
	Receiver A (H) 4.	Reference	db
	Receiver 8 (H) 2	Reference	<u>- 17.5</u> db
	Combined Him 1.5 db Noise IMPROVEMENT.	At least 1.5 Equal to or less than Rec A or Rec B	2.0 08
5	RECEIVER PILOT TONE		RR - Initia

ANTENNA SYSTEM VSWR At fot 7,5 mc Max. 1.40

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### FEDERAL ELECTRIC CORPORATION

BIG RALLY II PROJEC	Ť
RECEIVER 2-H DATA SHEET	
SERIAL " 030 AN/MRC-85 STATION	TEST
	STATION R-W
Transmission Patch: Station 10-E	to Station IR-W
I. RECEIVER GAIN	EXPECTED ACTUAL
-RF-Amplifier and Converter	Minimum 40 db /// db
· Parametric Amplifier & Converter	Minimum 33 db NA db
2. RECEIVER SENSITIVITY	
Signal Required Paramp. Fox 20 16 Quering	Max. 3uv 1.9 uv
-Far-20-db-Quieting RF-Amp.	Max. 4uv //
3. DC CONTROL VOLTAGE	
DC Cantrol Voltage	-35 volts + 3.5 -35 volts
4. DIVERSITY COMBINER	
Receiver Outputs (Vertical) + 2 db of each	other #1 Rec A Rec B
Receiver Outputs (Horizontal) + 2 db of each	
Receiver A (V)	Reference 19, 5, db
Receiver B (V)	Reference 20,0 db
Combined MIN 1.5 db Noise  IMPROVEMENT RG.	Equal-to or-less- than-Rec A or Rec B
Receiver A (H)	Reference -2.0.0db
Receiver B (H)	Referencedb
Combined MIN 1.5 db Noise IMPROVEMENT FIG.	Equal to or less than Rec A or Rec B
5. RECEIVER PILOT TONE	RBS Initials
6. ANTENNA SYSTEM VSWR AT Sot 1.5 mc.	Max. 1.40 1.17
	ESTER M. Zeephast  RVISOR R. Dar Robins
WONLII I AS.	SURANCE RB PRICE

Sheet I of I

### FEDERAL ELECTRIC CORPORATION

BIG I	RALLY II PROJ	JECT	
RECEIVER 3-V	DATA SHEET	r	
SERIAL & 031 AN/N	IRC-85 STATIC	ON TEST	
		station	1R-W
Transmission Patch: Station	ID-E	to Station	R-W .
I. RECEIVER GAIN		EXPECTED	ACTUAL
RF Amplifier-and Converter		Minimum 40 db	V/1) db
· Parametric Amplifier & Con	verter	Minimum 33 db	NA db
2. RECEIVER SENSITIVITY			
Signal Required Paramp. For	20 db Que	TING Max. Buy	2,2 UV
-For 20-db Quieting-RF-Amp		Max. 4uv	N/F). UV
3. DC CONTROL VOLTAGE			
DC Control Voltage		-35 volts + 3.5	-35 volts
4. DIVERSITY COMBINER			
Receiver Outputs (Vertical)	± 2 db of eac	ch other #1 10.	Rec B Rec B
Receiver Outputs (Horizonto	al) <u>+</u> 2 db of ed	ach other #4 4.0	
Receiver A (V)		Reference	19.5 db
Receiver B (V)		Reference	20.0 db
Combined Min 1.5 db	HOISE	Equal-to-or-less than-Rec-A-or-Rec B	<u> </u>
Receiver A (H)	in the last	Reference	30, 0 db
Receiver B (H)		Reference	-17,5 db
Combined MIN 1.50		Equal to or less than Rec A or Rec B	2.005
5. RECEIVER PILOT TONE			图形S Initial
6. ANTENNA SYSTEM VSWR 17	-So 1. 1.5 inc	~, Max. 1.40	2011
		DATE	10.2

Sheet I of I

TESTER
SUPERVISOR
QUALITY ASSURANCE

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RECEWER	4-1+
	1
SERIAL #	032

#### DATA SHEET

#### AN/MRC-85 STATION TEST

	STATION IR-W
Transmission Patch: Station 10-E	to Station IR-W
I. RECEIVER GAIN	EXPECTED
-RF-Amplifier and Converter	Minimum-40-db V Adb
· Parametric Amplifier & Converter	Minimum 33 db NA db
2. RECEIVER SENSITIVITY	
Signal Required Paramp. FOR 2040 QUIETING	Max. 3uv 2.4 uv
For 20 db Quieting RF Amp.	Max. 40V NA UV
3. DC CONTROL VOLTAGE	
DC Control Voltage	-35 volts + 3.5 -35 volts
4. DIVERSITY COMBINER	1) D A
Receiver Outputs (Vertical) ± 2 db of each	1 Rec A Rec B rother #4 \$10.8 db 3 16.5 db
Receiver Outputs (Horizontal) + 2 db of eac	th other #4-9 db #2-8.7 db
Receiver & (V) 1	Reference i 9.5 db
Receiver 8 (V) 3	Reference db
Combined Min 1.5 db Noise IMPROVE MENT FICE	Equal to or less 2.5 db than Rec A or Rec B
Receiver A (H) 4	Reference db
Receiver & (H) 2	Reference db
Combined MIN. 1.5 DB NOISE IMPROVEMENT FIG.	Equal to or less than Rec A or Rec B 2006
5. RECEIVER PILOT TONE	RBS Initials
6. ANTENNA SYSTEM VSWR at So ± 1.5 mc	Max. 1.40 1.23.1
	DATE 12 SUNE 1963 TESTER ERVISOR ENVISOR SSURANCE R.B. Speak
	L-RP 5-3(-

Sheet I of I

RECEIVER	1-4
SERIAL	017

#### DATA SHEET

AN/MRC-85 STATION TEST

			STATION_	IR-E	
Trans	mission Patgh: Station 10	- W	to Station	IR-E	
1. 8	RECEIVER GAIN		EXPECTED		ACTUAL
	RF Amplifier and Converter		Minimum 40 db	NA	db
	· Parametric Amplifier & Conve	rter	Minimum 33 db	35	db
2. R	RECEIVER SENSITIVITY		<b>(</b>		
	Signal Required Paramp. For 2	Och Queting.	Max. 3uv	2.4	UV
	For 20 db Quieting RF Amp.		Max. 4uv	NA	UV
3.	DC CONTROL VOLTAGE				
	DC Control Voltage		-35 volts ± 3.5	-36	volts
4. [	DIVERSITY COMBINER				
	Receiver Outputs (Vertical) ±	2 db of each o	ther Rec		Rec B
	Receiver Outputs (Horizontal)	±2 db of each	other 11 1 + 4,	5 db +	.5 db
	Receiver A (V)	• :	Reference	_	24.9 db
	Receiver 8 (V) # 3		Reference	<u>-</u>	26.2 db
	Cambined Min 115 46 Nois		Equal-to-or-loss than Rec A or Rec-B	_	2.75 db
	Receiver A (H) = L		Reference		2-575 db
	Receiver B (H) # 4	The state of the s	Reference	_	25 db
•	Combined MIN. 1.5 db None	I mprovement	Equal to or less han-Rec A, or Rec B		2.5 00
5.	RECEIVER PILOT TONE			RA	S · Initials
6.	ANTENNA SYSTEM VSWR		Max. 1,40	1.5	7
		TE	STER & Lalest	Westerni	3

RECEIVER	2-H	
SERIHL	018	

#### DATA SHEET

#### AN/MRC-85 STATION TEST

		the state of the s			
Tran	nsmission Patch: Station	10-W	to Station 1	R-E	1.
1.	RECEIVER GAIN		EXPECTED		ACTUAL
	RF Amplifier and Canvert	er	Minimum 40 db	NA	db
	· Parametric Amplifier & C	onverter	Minimum 33 db	39	db
2.	RECEIVER SENSITIVITY		6 - 4 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1		
	Signal Required Paramp.	For 20 db Quierin	2,5 Max. 3uv	2,0	uv
	Far 20 db Quieting REAR	FP. WITH CONVER	Max. Auv	Notes 4.	S uv
3.	DC CONTROL VOLTAGE	<b>3.17</b>			
	DC Cantral Valtage		-35 valts + 3.5	-35	val
4.	DIVERSITY COMBINER		1.7		
	Receiver Outputs (Vertice	al) ± 2 db of ea	ch other Rec		Rec B - 3.8 d
	Receiver Outputs (Horizon	ntal) + 2 db of e			
		mai/ ± 2 ab or et	ach other up + 44	5 db +	5 d
	Receiver A (V)	7	Reference	Maria Cara	
				_ 2	4.9
	Receiver A (V) Receiver B (V) Combined	5 db Noise prouz HENT	Reference	- 2 - 2	4.9
	Receiver A (V) Receiver B (V) Combined	5 db Noise	Reference Reference Equal to or less	_ 2 _ 2 _ 2	4.9 6
	Receiver A (V) Receiver B (V) Combined M:N. 1.	5 db Noise prouz HENT	Reference Reference Equal to or less than Rec A or Rec B	_ 2 _ 2 _ 2	4.9 d
	Receiver A (V) Receiver B (V) Combined Min. I. Receiver A (H) Receiver B (H) Combined Min. I.	5 db Noise prouz HENT	Reference Reference Equal to or less than Rec A or Rec B	- 2 - 3 - 3	4.9 d
5.	Receiver A (V) Receiver B (V) Combined Min. I. Receiver A (H) Receiver B (H) Combined Min. I.	5 db Noise prove Hent	Reference Reference Equal to or less than Rec A or Rec B Reference Reference Equal to or less	- 2 - 2 - 3	4.9 d
5. 6.	Receiver A (V) Receiver B (V) Combined MIN. I. Receiver A (H) Receiver B (H) Combined MIN. I.	5 db Noise prove Hent	Reference Reference Equal to or less than Rec A or Rec B Reference Reference Equal to or less	- 2 - 2 - 3	4.9 d 6.2 d 1.75 d 5.5 d

Sheet I of I

0	3-V	
RECEIVER		
SERIAL	019	

#### DATA SHEET

AN/MRC-85 STATION TEST

		STATION	IR-E	
Tra	nsmission Patch: Station 1 C+44	to Station	IR-E	,
1.	RECEIVER GAIN	EXPECTED		ACTUAL
	RF Amplifier and Converter	Minimum 40 db	NA	db
	· Parametric Amplifier & Converter	Minimum 33 db	35	db
2.	RECEIVER SENSITIVITY	2,5		
	Signal Required Paramp. For 20 db QUIETING-	Max. 3uv	2.5	UV
	For 20 db Quieting RF Amp.	Max. 4uv	N.A	uv
3.	DC CONTROL VOLTAGE			
	DC Control Voltage	-35 volts ± 3.5	- 34	volts
4.	DIVERSITY COMBINER	Rec A		Rec B
	Receiver Outputs (Vertical) + 2 db of each			+3.8 db
	Receiver Outputs (Horizontal) ± 2 db of each	other 11 : +4.5	db	+5 db
	Receiver A (V)	Reference		24.9 db
	Receiver B (V)	Reference	-	26,2 db
	Combined Min 1.5 db Noise	Equal-to-or-less than-Roc-A-or-Roc-B		2.75 db
	Receiver A (H)	Reference		2515 db
	Receiver 8 (H)	Reference		25 db
	Combined Min 1.57 Lis Noise	Equal to or less than Rec A or Rec B		2.5 db
5.	RECEIVER PILOT TONE			<u>Initial</u>
6.	antenna system vswr	Max. 1,40	. /,	40
		ESTER ! E	190 FOILLE	3
	QUALITY ASS	RVISOR : PELLS SURANCE R.B	Spicer	
		el,	99	5-38

RECEIVER	4-H	DATA SHEET
SERIAL	020	AN/MRC-85 STATION TEST

	STATION_	IR-E	
Transmission Patch: Station 10-W.	to Station	IR-E	1.
I. RECEIVER GAIN	EXPECTED	<b>A</b>	CTUAL
RF Amplifier and Converter	Minimum 40 db	NA	db
Parametric Amplifier & Converter	Minimum 33 db	40	db
2. RECEIVER SENSITIVITY			
Signal Required Paramp. For 20 66 QUETT	2.5 Max. 3uv	2.4	uv
For 20 db Quieting RF Amp.	Max. 4uv	NA	uv
3. DC CONTROL VOLTAGE			
DC Control Voltage	-35 volts ± 3.5	-37	volts
4. DIVERSITY COMBINER	2.,		
Receiver Outputs (Vertical) + 2 db of eac	Rec A		3.8 db .
Receiver Outputs (Horizontal) + 2 db of each		db ÷	5. db
Receiver A (V)	Reference	<u>2</u>	4.9 db
Receiver B (V)	Reference	2	6.2 db
Combined MIN 1.5 & b Noise	Equal to or less than Rec A or Rec B	2	.75 db
Receiver A (H)	Reference	2	5-5- db
Receiver B (H)	Reference	- 2	. 5 db
Combined MIN 1.5 db Noise	Equal to or less- than Rec A or Rec B	- 2.	5 db
5. RECEIVER PILOT TONE		· RBS	· Initial
6. ANTENNA SYSTEM VSWR	Max. 1,40	1,57	
	DATE 14	June 19	4.3
	ERVISOR Robert	Wester	
QUALITY A	SSURANCE RIB	.Srear	

Sheet I of I

#### DATA SHEET

### AN/MRC-85 STATION TEST RECEIVER

		STATION IC WEST	
Transmission Patch: Station	IR:	to Station IC	
I. RECEIVER GAIN		Receiver 2 3 4 ACTUA	.L
RF Amplifier and Converter		IF#2 Minimum 40 db 57, 66.4 68.2	db
Parametric Amplifier & Conve	erter	IF#L Minimum 33 db 32.2 38.2 42.8 c	db
2. RECEIVER SENSITIVITY			
Signal Required Paramp.		Max. 3uv <u>1.8 1.9 1.6</u>	N S
For 20 db Quieting RF Amp.		Max. 4uv	JV .
3. DC CONTROL VOLTAGE			
DC Control Voltage		-35 volts + 3.5 - 35 - 35 vo	olts
4. DIVERSITY COMBINER		Rec A Rec B	
Receiver Outputs (Vertical)	<u>+</u> 2 d		db å
Receiver Outputs (Horizontal	) <u>+</u> 2 c	db of each other #2 +4.5 db# 4 5.00	db
Receiver A (V)		Reference	db
Receiver B (V)		Reference At least 1.5	db
Combined		Equal to or less than Rec A or Rec B	_db
Receiver A (H)	1.	Reference	_db
Receiver B (H)		Reference25	db
Combined	1	At least 1.546  Equal to or less than Rec A, or Rec B	db
5. RECEIVER PILOT TONE			nitials
			inidis
6. ANTENNA SYSTEM VSWR		Max. 1.40	
ANTENNA#1 2.1 -		TESTER J. DICKER	
Autene A #3 1.22		SUPERVISOR FULL PROBLEM	
ANTENNA F4 215	QU	ALITY ASSURANCE Willia His Mit	-
		GEETA Holotal Logica	-,
S	heet l	of 1	40

#### DATA SHEET

#### AN/MRC-85 STATION TEST

	STATIONIC
Transmission Patch: Station GK	to Station IC
I. RECEIVER GAIN	EXPECTED ACTUAL
RF Amplifier and Converter IF # 1	Minimum 40 db 34.5 33 31 35 db
. Parametric Amplifier & Converter IF #	2 Minimum 3 db 63 58 60 63 db
2. RECEIVER SENSITIVITY	50
Signal Required Paramp.	Max. 3uv N/A uv
For 20 db Quieting RF Amp.	Max. 4uv 3.2 2.8 3.5 3.5
3. DC CONTROL VOLTAGE	
DC Control Voltage	-35 volts + 3.5 35 35 35 volts
4. DIVERSITY COMBINER	
Receiver Outputs (Vertical) + 2 db of eac	
Receiver Outputs (Horizontal) + 2 db of ea	Rec #2 Rec # 4 ch other +10.0 db
Receiver A (V)	Reference = 20.5 db
Receiver B (V)	Reference -24.0 db
Combined	At least 1.5db  Equal to or less than Rec A or Rec B
Receiver A (H)	Referencedb
Receiver B (H)	Reference db
Combined	At least 1.5d6 Equal to or less than Rec A, or Rec B  2.5 dbm
5. RECEIVER PILOT TONE	PS Initia
6. ANTENNA SYSTEM VSWR	Max. 1.40
Rec. # 1.40 1.70 1.25 1.7	DATE 23 TOUIS 63 TESTER O Shafill PERVISOR AND Stouter States
	ASSURANCE COLLEGIST K. HOLE
	GEETA Globest of Seighter
Sheet I of I	5-41

#### DATA SHEET

#### AN/MRC-85 STATION TEST

	STATION G.K.
Transmission Patch: Station G. A	to Station 1. P.
I. RECEIVER GAIN	IF#2 Will EXPECTED Junp. 60 56 LACTUAL
RF Amplifier and Converter	Withems parteling from 40 db 33 30 335 34db
Parametric Amplifier & Conve	1//1
2. RECEIVER SENSITIVITY	2.544
Signal Required Paramp.	Max. 30V N/A UV
For 20 db Quieting RF Amp.	Max. 4uv \$ 36 uv
3. DC CONTROL VOLTAGE	3/ 33 345 33.3
DC Control Voltage	-35 volts + 3.5 × 34.5 35.3 34.5 35.8 volts
4. DIVERSITY COMBINER	Rec A Rec B
Receiver Outputs (Vertical)	
Receiver Outputs (Horizontal	) + 2 db of each other # 2 . // db#// 10 db
Receiver A (V)	Reference — 20 db
Receiver B (V)	Reference #3 -20 db
Combined Noise //2007	11.5 db. Equal to or less -225 db than Rec A or Rec B
Receiver A (H)	Reference #2 -205 db
Receiver B (H)	Reference #4 18.5 db
Combined Worse Turproses	1.5 db. Equal to or less than Rec A, or Rec B = 22.5 db.
5. RECEIVER PILOT TONE	BB. Initials
6. ANTENNA SYSTEM VSWR	Max. 1,40 1.57 1.76 1.31
	DATE 26-JUNE, 63 TESTER TESTER
	SUPERVISOR Guasell & Carta
	QUALITY ASSURANCE 104. 1200.

#### DATA SHEET

#### AN/MRC-85 STATION TEST

	STATION G.K.
Transmission Patch: Station 6	to Station G.A.
I. RECEIVER GAIN	EXPECTED #1 # TETHAL
-RF Amplifier and Converter	Minimum 33 db 35 33 42 39 db
· Parametric Amplifier & Conv	William 00 db 33   73   37 db
2. RECEIVER SENSITIVITY	1.F. OUT PUT #2 65 58 65 66
Signal Required Paramp.	Max 300 1.9 1.9 1.9 1.9 UV
-For 20 db Quieting RF Amp.	Max. 40v
3. DC CONTROL VOLTAGE	
DC Control Voltage	-35 volts + 3.5 -36.2 -35 -35 volts
4. DIVERSITY COMBINER	D. A. D. D. D.
Receiver Outputs (Vertical)	+ 2 db of each other #1 Rec A #4 Rec B db + 11 db
Receiver Outputs (Horizonta	1) $\pm 2$ db of each other $\pm 2 + 7$ db $\pm 3 + 2$ db
Receiver A (V)	Reference — 205 db
Receiver B (V)	Reference 4 - 31.5 db
Combined 15db NOISE M	Than Rec A or Rec B
Receiver A (H)	Reference #223.5 db
Receiver B (H)	Reference $\frac{73}{23.5}$ db
Combined 15db Noise IMI	Equal to or less  than Rec A or Rec B
5. RECEIVER PILOT TONE	B&B. Initials
6. ANTENNA SYSTEM VSWR FAL	DAN OPER. FREQ. Max. 1,40-15 MRS: 1,25 1,27 /31 /40
	DATE 3 July, 63 TESTER SUPERVISOR QUALITY ASSURANCE TAXABLE

#### DATA SHEET

#### AN/MRC-85 STATION TEST

	STATI	ON GA MRC	3-85
Transmission Patch: Station GA	to Station_	GK	
1. RECEIVER GAIN	EXPECTED		ACTUAL
RF-Amplifier and Converter	Minimum-40-c		db .
· Parametric Amplifier & Conve	rter Minimum 33 c	1V 2H db 39 39	3V 4H 34 36.5db
2. RECEIVER SENSITIVITY	n		
Signal Required Paramp.	2.5u√ Max. <del>355</del>	1.6 1.9	1.9 1.70
For 20 db Quieting RE Amp.	Max. 4uv	X X X X	UV
3. DC CONTROL VOLTAGE			
DC Control Voltage	-35 volts ± 3.	.535	volts
4. DIVERSITY COMBINER		Rec A 1	Rec B 3
Receiver Outputs (Vertical)		2.7 db	3.8 db
Receiver Outputs (Horizontal)	+ 2 db of each other 11	2 4.5 db	4.5 db
Receiver A (V) 1	Reference		26.7 db
Receiver B (V) 3	Reference		26.3 db
	IM 1.5 db Equal to or less		2.8 db
Receiver A (H) 2 .	Reference	And the second s	-25.5 db
Receiver B (H) 4	Reference		25.5 db
Combined MINIMUM IMPROVE	1 1.5 db — Equal to on he than Rec A or	T T	2.7 db
5. RECEIVER PILOT TONE			WDT Initials
6. ANTENNA SYSTEM VSWR	Max. 1,40	1V 2H 3	V 4H 25 1.57
	DATE 9 TESTER	July 1963	
	SUPERVISOR	( Maner	, and
	QUALITY ASSURANCE STA	abertal I	egles

BRII/14

AN/MRC-85 OVERALL TEST

AIV/MIKC-0	5 OVERALL TEST		
	STATION	1.D.	
Transmission Path: From 1, D. S	Station to 1, 12	Sta	tion
Exciter Serial No.1/1,5/N 014, 1/2,5/N 01	13		
Receiver Serial No. Rec. A#/ [VERT.)	, Rec. B# 4/ (Ho)	92.)	
Power Amplifier Serial No. 1/5/N 1/6#2	5/1014		
1. SYSTEM INTERMODULATION	SXCHIPS FXCHIPS FXCUPHI EXPECTED NPR	(Vent.)	Exetto MARZ Revail 4, Wax UAL
	NPR		
Intermodulation Frequency	Minimum VPR-43	Sdb Rec. A	Rec. B
15 KC	Waximani 99 asi	1 3 /3 / ubi	n <u>56/62</u> dbm
55 KC	Maximum-55 dbn		n <u>////</u> dbm
80 KC			n <u>59/63</u> dbm
		ESIGNAL NOIS	E
2. RADIO BASEBAND FREQUENCY RE	SPONSE		
글 이 그는 그리고 있는 것이 없다.	EXPECTED	ACT	UAL
Frequency		Rec. A	Rec. B
12 KC		10,9 dbm	
20 KC	-2 + 1 db	-10.2 dbm	- 10 dbm
30 KC	with respect	- / dbm	-10 dbm
40 KC	to 30 KC level	-10 dbm	··/C dbm
50 KC		-/6./ dbm	-10 % dbm
60 KC		-10-2 dbm	-10.5 dbm
70 KC		/p dbm	-10 dbm
. 80 KC	+0.25 db	-// dbm	-10 dbm
90 KC	with respect	-/0 dbm	-10 dbm
100 KC	to 90 KC level	-/0 dbm	-4,4 dbm
· 110 KC	Paralle galle	-/8./ dbm	-10 dbm
120 KC		-10.1 dbm	-/( dbm
	DATE	BeLINE F	2
	TESTER	11-111/11-1	-
	SUPERVISOR	125-01	P.C.
		-1/00	- John Marie
	QUALITY ASSURANCE	10 8 14	X Will

BRII/14

		S	TATION R	- WEST	
Transmission Path:	From IR-W	_Station to	ID-E	Statio	n
Exciter Serial No	016 I-V	_			
Receiver Serial No.	Rec. A# 029	j-√, Rec. E	3#03/ 3-	<b>/</b>	
Power Amplifier Se	rial No. 01.5	1-V			
1. SYSTEM INTERN	MODULATION		PECTED	ACTUA	L
Intermodula	ation Frequency		PR NDP-115-1/R	ec.A1	Rec. B #3
	15 KC	Maximun	n NPR-4546	78 dbm	-58 dbm

#### 2. RADIO BASEBAND FREQUENCY RESPONSE

15 KC 55 KC

80 KC

IB-W

	EXPE	CTED	ACTU	JAL	
Freque	ncy	I	Rec. A 1	Rec.	B 3
12 KC		-10.	5 dbm	-10.5	bm
20 KC	-2 + 1 db	-i0	dbm	-10 d	bm
30 KC	with respe	-1C	dbm	-10 d	bm
40 KC	to 30 KC 1	evel 10	dbm	-9.8 d	bm
50 KC		-10	dbm	-4.9 d	bm
60 KC		-10.	2 dbm	-10.1 d	bm
70 KC		-10	dbm	-10 d	bm
80 KC	$\pm 0.25 \text{ db}$	-10	o_dbm	-10 d	bm
90 KC	with respe	ct 10	dbm	10 d	hm.
100 KC	to 90 KC 1	evel -10	dbm	10 d	bm
110 KC		·- i (	dbm dbm	-10 d	bm
120 KC		-10	0 dbm	-10 d	bm

TESTER SUPERVISOR QUALITY ASSURANCE

Maximum -55 dbm -57 dbm Maximum -55 dbm -52 dbm -49 dbm -

DATA SHEET

AN/MRC-85 OVERALL TEST

ANYMINO	OS OVERNED TEST	
	STATION_	IR-W
Transmission Path: From IR-W	Station to ID-E	Station
Exciter Serial No. 015 2-H		
Receiver Serial No. Rec. A# 030 2	-H , Rec. B# 032	<u>4-H</u>
Power Amplifier Serial No. 016	<del>2.H</del>	
1. SYSTEM INTERMODULATION	EXPECTED	ACTUAL
Intermodulation Frequency 15 KC 55 KC 80 KC	NPR Minimum NPR-45 Maximum -55 dbn	Rec. A2-H Rec. B 4-H  -61 dbm -58 dbm  -57 dbm -56 dbm
2 DADIO DACEDAND EDEOMENCA D	PEDONEE	
2. RADIO BASEBAND FREQUENCY R		
	EXPECTED	ACTUAL
Frequency		Rec. A.J.H Rec. B 4-H
12 KC		-10.7 dbm -10.5 dbm
20 KC	-2 + 1 db	-10. i dbm -10 dbm
30 KC	with respect	-10 dbm -10 dbm
40 KC	to 30 KC level	-10.3 dbm -10,4 dbm
50 KC		-10.7 dbm -10.8 dbm
60 KC		-11.2 dbm -11.5 dbm
70 KC		-10 dbm -4.2 dbm
80 KC	+0.25 db	-10 dbm - 9.8 dbm
90 KC	with respect	-10 dbm -9.9 dbm
100 KC	to 90 KC level	-10 dbm -10 dbm
110 KC		-10 dbm -10 dbm
120 KC		-10 dbm -10 dbm
	DATE	JUNE ,12, 1963
	TESTER	M Leiphant.
	SUPERVISOR	R. War frein
	QUALITY ASSURANCE	RB Scor

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. BRII/14

Transmission Path: From | R-E | Station to | C-W: Station

Exciter Serial No. 009 2-H

Receiver Serial No. Rec., A# 018 2-H, Rec. B# 020 4-H

Intermodulation Frequency

Intermodulation Frequency

Intermodulation Frequency

Intermodulation Frequency

IS KC

Maximum -55 dbm -52 dbm

So KC

Maximum -55 dbm -57 dbm

Maximum -55 dbm -57 dbm

Maximum -55 dbm -57 dbm

#### 2. RADIO BASEBAND FREQUENCY RESPONSE

Power Amplifier Serial No. 010 2-H

	EXPECTED	21+	ACTU	JAL J	1-H
Frequency			ec. A	Red	. B
12 KC		-11.2	_dbm	-11,2	_dbm
20 KC	-2 + 1 db	-106	dbm		dbm
30 KC	with respect	-10,3	dbm	-10,3	dbm
40 KC	to 30 KC level	-10.3	dbm	-10.3	dbm
50 KC		-10.2	_dbm	-10.3	dbm
60 KC		-10.2	dbm	-10.3	dbm
			1,100		
70 KC		-10	dbm	-10	dbm
80 KC	+0.25 db	-10	dbm	-10	dbm
90 KC	with respect	-10.	dbm	-10	dbm
100 KC	to 90 KC level	-10,	dbm	-10	dbm
110 KC		-10,	dbm	-10,1	dbm
120 KC		-10.	dbm .	-10,1	dbm

TESTER & DOUG 1963
SUPERVISOR & DOUG PALACION

QUALITY ASSURANCE CB, Special

MRP

. BRII/14

STATION ? IR-E Transmission Path: From IR-E Station to 19-m Station Exciter Serial No. 010 Receiver Serial No. Rec. A# 017 1-V, Rec. B# 019 Power Amplifier Serial No. 2009 EXPECTED 1. SYSTEM INTERMODULATION Intermodulation Frequency 15 KC dbm -55 dbm 55 KC Maximum -55-dbm -50 dbm -60 dbm 80 KC Maximum -55 dbm -50 dbm -60 dbm 2. RADIO BASEBAND FREQUENCY RESPONSE EXPECTED ACTUAL Rec. A -i-V Rec. B-3V Frequency 12 KC -il dbm -16.5 dbm -10.3dbm 20 KC -2 + 1 db-- 10.3 dbm -10 dbm dbm 30 KC with respect -10 -10 40 KC to 30 KC level -10 dbm dbm 50 KC -io dbm -10 dbm -10.2dbm 60 KC -10.2 dbm -10 dbm -- 10 dbm 70 KC +0.25 db -10 dbm ~10 dbm 80 KC 90 KC with respect -10 dbm ~/0 dbm to 90 KC level -10 dbm -10 dbm 100 KC -10 dbm -10 dbm 110 KC -10 dbm 120 KC 16 JUNE 1963 TESTER 5 SUPERVISOR Robert QUALITY ASSURANCE

IC-w.

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## FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET AN/MRC-85 OVERALL TEST

BRII/14

			STATION	IC WE	ST
Transmission Path:	From IC	Station to	o IR	Sta	ation
Exciter Serial No.		2			
Receiver Serial No.	Rec. #	007 , Rec	. B# 008	A Paris	
Power Amplifier Ser	ial No.				
1. SYSTEM INTERM	ODULATION	E	XPECTED	3 ACT	CUAL 4
Intermodulat	ion Frequen	cy	NPR	Rec. A	Rec. B
	15 KC	-Maxin	num 55 dbr	-56 db	m <u>-54</u> dbm
	55 KC				m = 54 dbm
	80 KC	Maxin	num -55 dbr	- 55 db:	m <u>-53</u> dbm
2. RADIO BASEBANI	FREQUEN	CY RESPONSE			
		E	XPECTED	ACT	UAL 4
	Frequen	2		4	Rec. B
	12 KC				-10.5 dbm
	20 KC	-2 + 1	db		-10.0 dbm
	30 KC	with r	espect	-10.0 dbm	
	40 KC	to 30 1	KC level	-10.0 dbm	
	50 KC			-10.0 dbm	-10.2kdbm
	60 KC			-10.0 dbm	-10.25bm
	70 KC			_10 0 dbm	-10.25dbm
	80 KC	+0.25	db ·		-10.25lbm
	90 KC		espect	-10 0 dbm	-10.25hm
	100 KC		KC level		-10.5 dbm
	110 KC				-10.5 dbm
	120 KC				-10.5 dbm
			DATE	16 June	1060
			TESTER		
			SUPERVISOR	T Degle	the state of
			Y ASSURANCE		
		SOALII	L WOODWAINCE	- (A) Allier	· /CAL

BRII/14

# FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET AN/MRC-85 OVERALL TEST

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	STATION IC
Transmission Path: From TEIC S	Station to EGK Station
Exciter Serial No. EXC. # 2	기상화하는 경에는 그 그 기사의 경사가 되었다. 그 그리고
Rx.#1  Receiver Serial No. Rec. A#Rx.#2½  Amp.#1	Rx.#3  Rec. B#Rx.#4
Power Amplifier Serial No.Amp.#2	
1. SYSTEM INTERMODULATION	EXPECTED ACTUAL
Rx.#1 Intermodulation Frequency	NPR Rec. K#2 Rec. E#4
-50.0 -50.5 - 15 KC	MINIMUM NPR-4546 Maximum -55 dbm -53 dbm -52 dbm
-50.5 -50.0 - 55 KC	Maximum -55 dbm -52 dbm -50 dbm
-51.0 -51.5 - 80 KC	Maximum -55 dbm -50.5 dbm -50 dbm
2. RADIO BASEBAND FREQUENCY RE	SPONSE
	EXPECTED ACTUAL
Rx. #1 Rx. #3 Frequency	Rec. № #2 Rec. № #
-10.9 -10.9 12 KC	<u>-11</u> dbm <u>-11</u> dbm
-10.2 -10.1 20 KC -10.0 - 9.75 30 KC	-2 + 1 db $-10.3 dbm$ $-10.2 dbm$ with respect $-10.2 dbm$ $-10.0 dbm$
30 KG	
-10.0 - 9.5 40 KC -10.2 - 9.8 50 KC	to 30 KC level10.3 dbm10.0 dbm10.4 dbm10.0 dbm
-10.4 - 9.8 60 KC	$\frac{-10.7 \text{ dbm}}{-10.6 \text{ dbm}} = 9.9 \text{ dbm}$
00 110	16
-10.0 -19.75 70 KC	-10.1 dbm - 9.9 dbm
OU AC	+0.25  db $-10.2  dbm$ $-9.9  dbm$
-10.0 - 9.75 90 KC	with respect -10.25bm -10.0 dbm
+0.0 - 9.75 100 KG	to 90 KC level -10.4 dbm -10.0 dbm
-10.0 - 9.75 110 KC	-1 <u>0.25</u> dbm <u>-9.9</u> dbm
-10.2 -9.75 120 KC	-10.4 dbm -9.8 dbm
	DATE 22 JUNE 63
	TESTER P Madel
	SUPERVISOR FALLAMAN
	OLIALITY ASSUBANCE /1 - 17 (52)

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### FEDERAL ELECTRIC CORPORATION

BRII/14

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#### BIG RALLY II PROJECT DATA SHEET

AN/MRC-85 OVERALL TEST

STATION	GIK.
Transmission Path: From G.K. Station to I.C.	Station
#/ #2	경상, 일본 경험 경신 시 등 및 경험점
Exciter Serial No. 001 005.	
Receiver Serial No. Rec. ## 2002 . Rec. ## 005	
Power Amplifier Serial No. 2 029 P.A. #1 /4 001	
Fower Ampinier Serial No. 2 day 1	MODI MOD2
	EXC 2 EXC )
1. SYSTEM INTERMODULATION EXPECTED	PA2 ACTUALPA /
Intermodulation Frequency	Rec. A2 Rec. El x
15 KC Maximum -55 db	546 m 56 dbm 52 dbm 53
55 KC Maximum -55 db	
80 KC Maximum - 55 db	
2. RADIO BASEBAND FREQUENCY RESPONSE	
EXPECTED	ACTUAL
REC3 REC1 REC4 REC2 Frequency	Rec. A Rec. B
19,75 19,7 19.9 20.1 12 KC	dbm dbm
19 19 19.3 19.4 20 KC -2 + 1 db	dbm dbm
19 19 19 19 30 KC with respect	dbmdbm
18.75 18.9 18.8 19 40 KC to 30 KC level	dbmdbm
10 5 10 TO	dbmdbm
18.8 18.1 18.6 19 60 KC	dbmdbm
19.2 19.2 19.2 18.85 70 KC	dbm dbm
19 19.1 19.5 18.9 80 KC +0.25 db	dbm dbm
19 19 19 19 90 KC with respect	dbm dbm
18.85 19. 18.9 19. 100 KC to 90 KC level	dbm dbm
18.75 19. 18.85 19. 110 KC	dbm dbm
1875 19. 18.75 19.1 120 KC	dbmdbm
DAT	= 07 lune 13
DATI TESTED	E 27 VINE, 63
all the control of th	8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Timp. Carrection + actor of 495 SUPERVISOR	susself Church
to be applied for correct read QUALITY ASSURANCE	E 13 / 12005.
tings taken w/m ter calibrated for TESTER  Temp. Correction factor of 9db SUPERVISOR  to be applied for correct read QUALITY ASSURANCE  13.75 Reading = 9.75 Corrected.	
* 29 JUNE 63	

DATA SHEET
AN/MRC-85 OVERALL TEST

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BRII/14

STATION G, K Transmission Path: From (9, K. Station to GA Station Exciter Serial No. 006 005 #2 Receiver Serial No. Rec. A# 0/3 014 , Rec. B# #2 Power Amplifier Serial No. 007-H Mod. 1 Mod. 2 P.A. 2 P.A. I ACTUAL Exc. 2 EXC.1 1. SYSTEM INTERMODULATION Rec. 7 Intermodulation Frequency 15 KC bm -54 dbm -58 dbm 55 KC Maximum -55 dbm -51 dbm -53 dbm Maximum -55 dbm -51 dbm 80 KC EBAND FREQUENCY RESPONSE PA 2PA2 PAI PAI EXI. 2 EXI2 EXII EXII REC. 1 PRIY REC3 REC2 EXPECTED ACTUAL Frequency Rec. A Rec. B 12 KC dbm dbm 1-201-20 20 KC -2 + 1 dbdbm dbm 30 KC dbm 19 with respect dbm 40 KC to 30 KC level dbm dbm -19 -19 50 KC dbm dbm .19 -9.1 -All 60 KC dbm dbm 192-195 -A11-A2 70 KC dbm dbm dbm -19 -19 19 80 KC +0.25 db dbm with respect dbm dbm 90 KC -19 -19 100 KC to 90 KC level dbm dbm -19 -19 -19 110 KC dbm dbm -19 -19 120 KC dbm dbm DATE lings to ken almoter colibrated Lar **TESTER** Zoop. Concetilist actor of adh SUPERVISOR he applied for correct read QUALITY ASSURANCE

Reading = 9.75 Corrected.

BRII/14

# FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET AN/MRC-85 OVERALL TEST

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**1**0

		STATIC	ON GA MRC-85	5
Transmission Path:	From GA	Station to GK	St	ation
Exciter Serial No.	Oll 2H	_ 1.		
Receiver Serial No.	Rec. A# 022	2H , Rec. B# 024	<u>4</u> H	
Power Amplifier Ser	ial No. 014	2Н		
1. SYSTEM INTERM	ODULATION	EXPECTE NPR	D AC'	TUAL 4
Intermodula	15 KC 55 KC 80 KC	MINIMUM NPR	<del>dbm</del> <u>-54</u> db <del>dbm</del> <u>-50</u> db	Rec. B  om <u>-55</u> dbm  om <u>-50</u> dbm  om <u>-51</u> dbm
2. RADIO BASEBAN	D FREQUENCY I	RESPONSE		
		EXPECTE	D v AC	TUAL
	Frequency 12 KC 20 KC 30 KC 40 KC 50 KC	-2 + 1 db with respect to 30 KC level	Rec. A -12.0 dbm -11.1 dbm -10.6 dbm -10.2 dbm -10.0 dbm	-10.7 dbm -10.0 dbm -9.8 dbm -9.6 dbm -9.5 dbm
	70 KC 80 KC 90 KC 100 KC 110 KC	+0.25 db with respect to 90 KC level	-10.1 dbm -10.0 dbm -10.0 dbm -10.0 dbm -10.0 dbm -10.0 dbm	-9.7 dbm -9.7 dbm -9.8 dbm -9.8 dbm
		DA TESTE SUPERVISO QUALITY ASSURAN	OR Payel M	Danery of
			Rout	D. Parlace

#### FEDERAL ELECTRIC CORPORATION

BRII/14

#### BIG RALLY II PROJECT DATA SHEET

AN/MRC-85 OVERALL TEST

	STATION_	GA MRC-85
Transmission Path: From GA	Station to GK	Station
Exciter Serial No. 012 1V		
Receiver Serial No. Rec. A# 021	1V , Rec. B# 023 3	V
Power Amplifier Serial No. 018	וע	<i>)</i> ,
1. SYSTEM INTERMODULATION	EXPECTED	ACTUAL 3
Intermodulation Frequency	NPR	dh Rec. A Reg. B
THIS TEST WAS CONDUCTED 15 KC	Minimum NPR 450	$\frac{76}{-50/56}$ dbm $\frac{-51}{52}$ dbm
WITH FA OPERATING AT 7KW 55 KC		-48/55 dbm $-50/53$ dbm
80 KC		-51/56 dbm $-50/55$ dbm
2. RADIO BASEBAND FREQUENCY	RESPONSE	
	EXPECTED	ACTUAL 3
Frequency		Rec. A Rec. B
12 KC		-10.9 dbm -10.5 dbm
20 KC	-2 + 1 db	-10.2 dbm -9.8 dbm
30 KC	with respect	-10.1 dbm -9.6 dbm
40 KC	to 30 KC level	-10.1 dbm -9.5 dbm
50 KC		-10.1 dbm -9.5 dbm
60 KC		<u>-10.2</u> dbm <u>-9.4</u> dbm
70 70		70 0 dhm 0 5 dhm
70 KC	+0.25 db	-10.2 dbm -9.5 dbm -10.3 dbm -9.5 dbm
. 80 KC	with respect	-10.3 dbm -9.5 dbm -10.4 dbm -9.6 dbm
90 KC	to 90 KC level	-10.4 dbm -9.6 dbm
100 KC	to 90 KC level	-10.4 dbm $-9.8$ dbm $-9.8$ dbm
110 KC		
120 KC		<u>-10.5</u> dbm <u>-9.8</u> dbm
	DATE_	13 July 1963
	TESTER	1115/1/1/10 .
	SUPERVISOR	Tank Manen of
	QUALITY ASSURANCE	Son Landol
	OFFI	about of Jodes

BRII/15

### DATA SHEET

AN/MRC-85 LINK TEST

	•		
		STATION ]	D.
Transmission Path: From	LR	Station to ] D,	Station
V. Exc. Serial No. 0/4	v.	Rec. Serial No.	2.5
H. Exc. Serial No. 1913			57
V. 10 KW P.A. No			2 /2
H. 10 KW P.A. No.			28.
V. Trans. Ant. No.	1	- 1	
H. Trans. Ant. No.	2)		
	1 1 1/4	. 4- 9 db. ATTENHAT	COR
1. RADIO NOISE AND SPU	RIOUS TONE	LEVELS EXPECTE	ED ACTUAL
FAB (2-1)		HI-10	Freq. Noise Level
Baseband Noise 24 50		60 78 -60 dbm	KC dbm
31 61	1	60 48	KC dbm
32. 61			KC dbm
36 53		52 50	KC dbm
79 bi	11.4 4 (3.4)	59 50	KC dbm
44 61		70 65	
NOTE: Record all noise	1 / 1		ept
. signal at 60 KC.			•
2. RADIO BASEBAND FRI	EQUENCY RE	SPONSE	
	1.10		
	Frequency	EXPECTE	ED ACTUAL
	12 KC		-1/2 dbm
	20 KC	-2 +1 dbm	and and a second a
	30 KC	with respe	
	40 KC	to 30 KC 1	
	50 KC		10 dbm
	60 KC		. <u>-//</u> dbm
	70 KC		- 10 dbm
	80 KC	+0.25 dbn	
	90 KC	with respe	
	100 KC	to 90 KC 1	
	110 KC	10 /0 110 1	. O. ⇔ dbm
	120 KC		dbm
	120 110		<u>///</u> dbiii
		DATE	17 June 13
		TESTER	K NEKON
		SUPERVISOR	13 Gibbons
	0	TAT TOUR ACCIDANCE	

Sheet 1 of 1

#### FEDERAL ELECTRIC CORPORATION

#### BRII/15

#### BIG RALLY II PROJECT DATA SHEET AN/MRC-85 LINK TEST

sT	ATION	IR-W
Transmission Path: From 10-E Station to	r-w	Station
V. Exc. Serial No. 0/6 (-V V. Rec. Seria	1 No. 029	1-V
H. Exc. Serial No. 0:5 2-14 V. Rec. Seria	1 No. 031	3-V
V. 10 KW P.A. No.015 1-V H. Rec. Seria	1 No. 030	2-11
H. 10 KW P.A. No. 016 2-H H. Rec. Serie		4-H
n. RADIO NOISE AND SPURIOUS TONE LEVELS	EXPECTE	D ACTUAL
1. RADIO NOISE AND SPURIOUS TONE LEVELS	EXPECTE	
그게 되는 그리는 그림의 발생님은 나는 내 이번 의미 나를 되다 하셨다.		Freq. Noise Level
Baseband Noise Studious Noise Pulses	-60 dbm1	2 To 18 KC -54 dbm
PADES + NOISE BUCITS		21 KC -46 dbm
RANIC PILOT		60 KC -16 dbm
Spurious Noise Throught eut	BASE BAND	KC dbm

NOTE: Record all noise signals greater than -60 dbm, except signal at 60 KC.

#### 2. RADIO BASEBAND FREQUENCY RESPONSE

Frequency	EXPECTED ACTU	AL
12 KC		-20 dbm
20 KC	-2 +1 dbm	-19 dbm
30 KC	with respect	-i9 dbm
40 KC	to 30 KC level	-19 dbm
50 KC		-19 dbm
60 KC		-12.75 dbm
70 KC		-19 dbm
80 KC	+0.25 dbm	-19 dbm
90 KC	with respect	~19 dbm
100 KC	to 90 KC level	-19 dbm
110 KC		- 19 dbm
120 KC		-19 dbm
	•	

_	16 June, 1963.
TESTER	Marlin Leishart
SUPERVISOR_	Rolent Westing
QUALITY ASSURANCE	RBS RECV
Sheet 1 of 1	ARP

### FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

DATA SHEET
AN/MRC-85 LINK TEST

		STAT	LION	R-E
Transmission Path: From 10	-w	Station to_	R-E	Station
V. Exc. Serial No. 010 1-V	V.	Rec. Serial N	No. 017	i-V
H. Exc. Serial No. cog 3.H	v.	Rec. Serial N	10.019	3-V
1. 10 KW P.A. No. 009 1-V	H.	Rec. Serial N	No. 018	2-H
H. 10 KW P.A. No. 010 2-H	Н.	Rec. Serial I	No. 020	<u>4-H</u>
7. Trans. Ant. No. 009 2 1				*
i. Trans. Ant. No.	B			

#### 1. RADIO NOISE AND SPURIOUS TONE LEVELS EXPECTED ACTUAL

Freq. Noise Level 56 KC -5/ abm HIT OR FADE - NOT STEADY - 60 dbm Baseband Noise Rec-4-H 32 KC-5/16/6dbm AT 2500V SLOT 12 To Rec 3-V 110 KC -50 dbm HIT OR FACE 119 KC - 49 dbm REC 2.H AT 250~ FLOT STEHOY -Rec I-V 63 KC -56 dbm HIT OR PADE

NOTE: Record all noise signals greater than -60 dbm, except signal at 60 KC.

#### 2. RADIO BASEBAND FREQUENCY RESPONSE

Frequency	EXPECTED ACTUAL
12 KC	-12 -76 dbm
20 KC	-2 +1 dbm -11.8 -X dbm
30 KC	with respect -11.5 - dbm
40 KC	to 30 KC level-11.5 -75.5 dbm
50 KC	-11.5 -X dom
60 KC	-11.7 -+5 dbm
70 KC	-//,0 dbm
80 KC	+0.25 dbm -11.0-12.1 dbm
90 KC	with respect 11.0 -12 dbm
100 KC	to 90 KC level -11.0 dbm.
110 KC	_//.O_dbm
120 KC	<u>11.0</u> dbm

DATE 15 JUNE 1963
TESTER THAT ALL
SUPERVISOR R.B. School.

BRII/15

Sheet 1 of 1

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#### FEDERAL ELECTRIC CORPORATION

BRII/15

#### BIG RALLY II PROJECT DATA SHEET AN/MRC-85 LINK TEST

	/5 DII(II 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
		STATION I	WEST
Transmission Path: From 18		ion to IK	Station
V. Exc. Serial No. 004	V. Rec. S	Serial No.	
H. Exc. Serial No. 003		Serial No. 00	6
VKW P.A. No		Serial No. 00	
H. KW P.A. No.	H. Rec.	Serial No. 008	
V. Trans. Ant. No.			
H. Trans. Ant. No.			
1. RADIO NOISE AND SPURIOUS	CONE I EVE	LS EXPECTE	ACTILAT
1. RADIO NOISE AND SPORIOUS .	ONE LEVE.	LS EXPECTEL	Freq. Noise Level
Baseband Noise		% =60 dhm	120 KC -42 dbm
The state of the s	Rec.	17J	120 KC-55 dbm
	11	#2	120 KC-69 dbm
			KC dbm
			KC dbm
NOTE: Record all noise signals	greater than	n -60 dbm, excep	ot
signal at 60 KC.			
2. RADIO BASEBAND FREQUENC	Y RESPONS	E	
		The state of the s	er # 2 Only
Freque	•	EXPECTED	ACTUAL
12 KC			-11 dbm
20 K		-2 +1 dbm	
30 K		with respec	
40 K		to 30 KC le	15.7
50 K			-11.0 dbm
60 K	J		-11.0 dbm
70 K	5		-10 dbm
80 K		+0.25 dbm	-10 dbm
90 KG	5	with respec	
100 KG		to 90 KC lev	
110 KC			-10, 25dbm
120 KG			-10.25dbm
		DATE	16 June 1963
		TESTER	1126 Ken
		SUPERVISOR J	H Klusaras
	MOVINI	L ADSURANCE (	May K Mills
	Shee	tlofl	lata da ba
		GEEIA K	sem a caper
			5-59

## FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET

		AN/MRC-85 LI	NK TEST		
			ST.	ATION IC	
Transm	nission Path: Fro	omGK	Station to	IC s	tation
V. Exc	. Serial No. C	008 V.	Rec. Seria	No. 009	
	. Serial No. 00	v.	Rec. Serial	No. 011	
V. 10	KW P.A. No.		Rec. Serial	No. 010	
H. 10	KW P.A. No.	006 H	Rec. Seria		
V. Tra	ns. Ant. No. 1				
H. Tra	ns. Ant. No. X	<u>2</u>			
1. RAD	IO NOISE AND SE		LEVELS	EXPECTED AC	TUAL
				Fr	eq. Noise Level
Base	eband Noise			-60 dbm	_KCdbm
			rmonicuof Pilot Tone	Rx # 2 120 Rx # 3 120	0 <sub>0</sub> KC <u>-29 -</u> dbm 0 KC <u>-35 -</u> dbm 0 KC <u>-26 -</u> dbm
				Rx # 4 12	KC_26 - dbm
NOT	E: Record all noi	se signals grea	ter than -60	dbm, except	
	signal at 60 Kg	C			
GK 1	nust drop Horz. Vert. Receive a 10 BASEBAND F	t TC to make	e radio B.B.	freq. respond	e test
2. RAD	IO BASEBAND FI	REQUENCY RE	SPONSE	HORIZONTAL	
	RTICAL Rx # 3		Rx # 2		Rx # 4
Rx # 1	TA IF J	Frequency		EXPECTED A	
10 dbm	10 dbm	12 KC 20 KC	. 11.0 dbm	-2 +1 dbm	11.25 dbm
9.5	9.5	30 KC	10.5	with respect	10.5 dbm
10.5	10-5	40 KC	1001	to 30 KC level	· 10.25 dbm
9.0	9.5	50 KC	10.25	to bo ito level	10.25 dbm
9.25 9.75	9.75 10.0	60 KC	10.5		10.25 dbm
1.17					
0 55 33	40 0 31	70 KC	10.25 db	om	10.0 dbm
9.75 dbm	10.0 dbm 10.0	80 KC	10.0	+0.25 dbm	10.25dbm
10.0	10.0	90 KC	10.0	with respect	10.25 dbm
10.0	10.25.	100 KC	9.75 9.75	to 90 KC level	10.29 dom
10.0	10.25	110 KC			10.27 dbm
10.0	10.25	120 KC	9.75		10.25dbm
				DATE 25	1. 1. 2.13
				TESTER	Badel 1
			SUPE	RVISOR F	4-1/25-0110
	5.7	Q	UALITY ASS		i.R. Het

Sheet 1 of 1 GEEIA

## FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET

BRII/15

AN/MRC-85 LINK TEST

IC	STATION G.K.
Transmission Path: From 6.K	Station to F.E. Station
V. Exc. Serial No. 001  H. Exc. Serial No. 005  V. 10 KW P.A. No.  H. 10 KW P.A. No.  V. Trans. Ant. No.  H. Trans. Ant. No.	V. Rec. Serial No.   5/N    V. Rec. Serial No. 3 5/N 3  H. Rec. Serial No. 2 5/N 2  H. Rec. Serial No. 4 5/N 4
1. RADIO NOISE AND SPURIOUS	
Baseband Noise SLOW VARYI	Freq. Noise Level  -60 dbm -55KC -52 dbm  -60 dbm -55KC -57 dbm  -119 KC -57 dbm
NOTE: Record all noise signals signal at 60 KC.	greater than -60 dbm, except
2. RADIO BASEBAND FREQUENC	Y RESPONSE
2-H Frequ	- 1/ -
- //./ 12 KG	-11.5 -10.8 dbm
- 10·1 30 K	C-10.6 -2 +1 dbm -105 dbm
	C-10.2 with respect_10.5 -10. dbm c-10.2 to 30 KC level -10. dbm
	C-10.2 - 10.1 dbm
- 10, 60 K	
-1011 70 K	
- 10.3 90 K	
	C-9.6 with respect $-10 - 9.5$ dbm to 90 KC level $-9.4$ dbm
	- 9.6 dbm
-10:3 120 K	
	DATE 27 VIINE, 63 TESTER S.C. Strange
	SUPERVISOR SUPERVISOR
	QUALITY ASSURANCE 70.1.1000

## FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET AN/MRC-85 LINK TEST

		STATION 6, K	
	GA		
Transmission Path: F	rom Gitt	Station to -GTA-	Station
V. Exc. Serial No.	% 005 V. Re	c. Serial No. / 5/N 01	3
H. Exc. Serial No.2	S/N 00b. V. Re	c. Serial No. Ly S/W 01	
V. 10 KW P.A. No.		c. Serial No. 2 S/N DI	
H. KW P.A. No.		ec. Serial No. 35/V O	3
V. Trans. Ant. No.			
H. Trans. Ant. No.			
1. RADIO NOISE AND	COUDIOUS TONE I E	VELS EXPECTED A	CTIAT
I. RADIO NOISE AND	USING - 70 SCALE	F FELD EAFECTED A	req. Noise Level
Daseband Norse	IARYING TONE-S.	TEACH!	/8 KC - 62 dbm /8 KC - 62 dbm KC dbm KC dbm
L.	within ONE db.	1 g 3 1/2	KC dbm
· ·		- 55 out	KC dbm
		-	KC dbm
NOTE: Record all n		than -60 dbm, except	
2. RADIO BASEBAND		ONSE	RECZH RECZH
2. RADIO BASEBAND	FREQUENCY RESPO		ACTUAL
2. RADIO BASEBAND	FREQUENCY RESPO		
2. RADIO BASEBAND	FREQUENCY RESPONSED IV Frequency -20,2 12 KC - 20.3		CTUAL
2. RADIO BASEBAND	FREQUENCY RESPONDED TO PER 10 10 PER 10 10 PER 10 10 PER 10 10 PER 10 PE	EXPECTED A  -2 +1 dbm  with respect	ACTUAL -20.2 -203dbm -195 dbm -19 -19.3 dbm
2. RADIO BASEBAND	FREQUENCY RESPO BEC 4V REU I V Frequency -20,2 12 KC - 20.3 -19.6 20 KC -19.1 30 KC -19.5 -19 40 KC	EXPECTED A	CTUAL -20.2 -203dbm -19.5 dbm -19 -19.3 dbm dbm
2. RADIO BASEBAND	FREQUENCY RESPO BEC 4V REU I V Frequency -20,2 12 KC - 20.3 -19.6 20 KC -19.1 30 KC -19.5 -19 40 KC -19 50 KC	EXPECTED A  -2 +1 dbm  with respect	ACTUAL -20.2 -203dbm -195 dbm -19 -19,3 dbm -19 dbm -18.7 dbm
2. RADIO BASEBAND	FREQUENCY RESPO BEC 4V REU I V Frequency -20,2 12 KC - 20.3 -19.6 20 KC -19.1 30 KC -19.5 -19 40 KC	EXPECTED A  -2 +1 dbm  with respect	CTUAL -20.2 -203dbm -19.5 dbm -19 -19.3 dbm dbm
2. RADIO BASEBAND	FREQUENCY RESPONDED IV  Frequency -20,2 12 KC - 20.3 -19.6 20 KC -19.1 30 KC -19.5 -19 40 KC -19 50 KC -18.8 60 KC -19.8	EXPECTED A  -2 +1 dbm  with respect	CTUAL -20.2 -203dbm -19.5 dbm -19 -19.3 dbm -18.7 dbm -18.5 -18.8 dbm
2. RADIO BASEBAND	FREQUENCY RESPO REC 4V REU I V Frequency -20,2 12 KC - 20.3 -19.6 20 KC -19.1 30 KC -19.5 -19 40 KC -19 50 KC -18.8 60 KC -19.8 -18.9 70 KC -19	-2 +1 dbm with respect to 30 KC level	CTUAL -20.2 -203dbm -19.5 dbm -19 dbm -19 dbm -18.7 dbm -18.5 -18.3dbm
2. RADIO BASEBAND	FREQUENCY RESPONDED TO THE PROPERTY PRO	-2 +1 dbm with respect to 30 KC level +0.25 dbm	CTUAL -20.2 -203dbm -19.5 dbm -19 -19.3 dbm -18.7 dbm -18.5 -18.8 dbm -19.9 -19 dbm -19.9 dbm -19.9 dbm
2. RADIO BASEBAND	FREQUENCY RESPO BEC 4V REU I V Frequency -20,2 12 KC - 20.3 -19.6 20 KC -19.1 30 KC -19.5 -19 40 KC -19 50 KC -18.8 60 KC -18.8 -18.9 70 KC -19 -18.9 80 KC -18.9 90 KC -18.8	-2 +1 dbm with respect to 30 KC level  +0.25 dbm with respect	CTUAL -20.2 -203dbm -19.5 dbm -19 -19.3 dbm -19 dbm -18.7 dbm -18.5 -18.8dbm -19.9 dbm -19 dbm -19 dbm -19 dbm
2. RADIO BASEBAND	FREQUENCY RESPO REC 4V REU I V Frequency -20,2 12 KC - 20.3 -19.6 20 KC -19.1 30 KC -19.5 -19 40 KC -19 50 KC -18.8 60 KC -19.8 -18.9 70 KC -19 -18.9 80 KC -18.9 90 KC -18.8 -19 100 KC	-2 +1 dbm with respect to 30 KC level +0.25 dbm	CTUAL -20.2 -203dbm -19.5 dbm -19 -19.3 dbm -19. dbm -18.7 dbm -18.5 -18.8 dbm -19 -19 dbm
2. RADIO BASEBAND	FREQUENCY RESPO BEC 4V REU I V Frequency -20,2 12 KC - 20.3 -19.6 20 KC -19.1 30 KC -19.5 -19 40 KC -19 50 KC -18.8 60 KC -18.8 -18.9 70 KC -19 -18.9 80 KC -18.9 90 KC -18.8	-2 +1 dbm with respect to 30 KC level  +0.25 dbm with respect	CTUAL -20.2 -203dbm -19.5 dbm -19 -19.3 dbm -19 dbm -18.7 dbm -18.5 -18.8dbm -19.9 dbm -19 dbm -19 dbm -19 dbm

TESTER

SUPERVISOR

QUALITY ASSURANCE

Sheet 1 of 1

5-62

GA-W. ;

#### FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

BRII/15

DATA SHEET

AN/MRC-85 LINK TEST

	STATION GA MRC-85	
Transmission Path: From GA	Station to GRA Station	
Transmission Path: From MA	Station to 42. Station	
V. Exc. Serial No. 012 V.	Rec. Serial No. 21 (1V)	
V-1/2	Rec. Serial No. 23 (3V)	
V. 10 KW P.A. No. CARRIAGE 018H.		
H. 10 KW P.A. No. CARRIAGE 015H.	Rec. Serial No. 24 (4H)	
V. Trans. Ant. No. ONE		
H. Trans. Ant. No. TWO		
1. RADIO NOISE AND SPURIOUS TONE	LEVELS EXPECTED ACTUAL	
1. RADIO NOISE AND SI GRICOU TONE	Freq. Noise	Level
Baseband Noise	-60 dbm KC	dbm
SPURIOUS NOISES WERE NOTED ON	BOTH VERTICAL KC	dbm
RCVR'S. ACROSS ENTIRE BASeband	with AN KC	dbm
AVERAGE READING OF -46 dbm PEA	KING AT -41 dbm. KC	dbm
ON RCVR'S 2&4 NO READINGS ABOV	F -90dpm were noted KC	dbm
NOTE: Record all noise signals grea	ter than -60 dbm, except	
signal at 60 KC.		
a managaran managaran ne	CDONCE	
2. RADIO BASEBAND FREQUENCY RE	SPONSE	
Frequency	EXPECTED ACTUAL	
BASEBAND FREQ. RESPONSE 12 KC		dbm
LINK TEST COULD NOT BE 20 KC	-2 +1 dbm	dbm
CONDUCTED DUE TO RAPIDLY 30 KC	with respect	dbm
FLUCTUATING LEVELS. 40 KC	to 30 KC level	dbm
LOCAL TESTS DID NOT REVEAU KC	하다 사람들은 전 :	dbm
AN EQUIPTMENT MALFUNCTion of KC		dbm
70 KC		dbm
80 KC	<u>+</u> 0. 25 dbm	dbm_
90 KC	with respect	dbm
100 KC	to 90 KC level	dbm.
110 KC	· · · · · · · · · · · · · · · · · · ·	dbm
120 KC		dbm
	DATE 12 July 196	3
	TESTER	6
	SUPERVISOR Fair Manes	unt
Ω'	UALITY ASSURANCE Star London	Y O
	Sheet 1 of GEEIA Calertal	Egler
	PHOEF I OF PASSIA	
	5	-63

# FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET AN/TRC-35 STATION

	STATION CAB
Tr	ansmission Path: From Station GAB to Station GEL
Tr	ansmitter Serial No. #1 702 , #2 3789 .
Αε	signed Frequency 386.5000 MC
Tr	ansmitter, T302/TRC
	EXPECTED ACTUAL XMTG#1 XMTG#2
1.	FREQUENCY ±.002% of assigned 386.506 MC386.511 MC
2.	POWER OUTPUT Minimum 50 Watts 85 Watts 100 Watts
3.	AUTOMATIC FREQUENCY CONTROL
4.	LOW POWER ALARM Maximum 30 Watts 26 Watts 26 Watts

TESTER ASSURANCE Boules

GEETA Robert & Segles

Sheet 1 of 1

# FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET AN/TRC-35 STATION

			STATION	GEL	
Transmission Path: Fr	om Station	GEL	to Station	d GAB	
Transmitter Serial No.	#1 444	ļ, #	2 920	•	
Assigned Frequency	374.5	мс			
tration and a second second					
Transmitter, T302/TR	С				
		EX	PECTED		ACTUAL 1 XMTG#2
1. FREQUENCY		±.002%	of assigned	374,506 MC	374,5061C
2. POWER OUTPUT		Minimur	n 50 Watts	120Wat	ts 84 Watts
3. AUTOMATIC FREQ	UENCY CO	NTROL		MC	MC Initials
4. LOW POWER ALAR RF Output Power		Maximur	n 30 Watts		ts 45 Watts

DATE 21 July 1963
TESTER Learge & Sewitt
SUPERVISOR andrew of Hornath
QUALITY ASSURANCE M. CM
GEETA NY R FRANCE
Sheet 1 of 1

# FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET AN/TRC-35 STATION

STATION	GAB			
Transmission Path: From Station GAB to Station	GEL			1
Receiver Serial No. #1 1518 #2 706		·		
RECEIVER, R-417/TRC (TRC-35)  EXPECTED		ACTI	UAL.	1
	REC	#1	REC	#2
1. SQUELCH (SENSITIVITY)	•			
Measure meter reading (C) approximately 30µa	29	_µa	30.05	_µa
Measure meter reading (H)	18	_µа	19	_µа
Input Signal Level	250	_µv	250	_µv
2. BANDWIDTH				
Lower limit	267	kc	269	_kc
Upper limit	280	_kc	270	_kc
Bandwidth 540kc ±25 kc	547	-kc	539	_kc

DATE	21 JULY 1963	
TESTE	Uh Schreyobin	
SUPER	ISOR Emila Sparing hi	2
	Y ASSURANCE 1 15	
101,000	GEETA about whole	
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# FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET AN/TRC-35 STATION

		STA	TION _	GEL			
Transmission Pat	th: From Station_	GEL to S	tation	GAB			
Receiver Serial N	o. #1 <u>1133</u>	, #2	264		<b>_</b> .		
RECEIVER, R-41	7/TRC (TRC-35)						
		EXPECTE	)		ACT	UAL	
Assigned Freq.	= .386,5 MC			REC#	1	REC	#2
1. SQUELCH (SE	NSITIVITY)						
Measure me	eter reading (C)	approximately	у 30µа	30	_µа	30	_µa
Measure me	eter reading (H)			14	_µа	15	_µа
Input Signal	Level	Max 250 μv		250	_μν	25 <u>0</u>	μν
2. BANDWIDTH							
Lower limit			387,	321	kc 3	87 <u>.00</u> 7	<u>Z</u> kc
Upper limit			386,	6 <u>53</u>	_kc 3	86 <u>.09</u> 2	2_kc
Bandwidth		540kc ±25 kc		668	··kc	915	_kc

DATE 21 July 1963
TESTER Scores & Bouett
SUPERVISOR Chiley & Glowatt
QUALITY ASSURANCE M. CO'S
GEELA Shout
Sheet 1 of T

## FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET

AN/TRC-35 OVERALL TEST

	S	STATION GAB	
Transmission Path: From St	ation GAB	to Station GEL	
		1	
1. R; F. DEVIATION AND BA	SEBAND GAIN		
	EXPECTED	ACT XMTG-REC#1	UAL KMTG~REC#2
Signal level (Step E) Signal level (Step L) Receiver output (Step I) Receiver output (Step N)	-6 dbm 0dbm <u>+</u> 0.5dbm	32 μν 32 μν -6 dbm -7 dbm	36 µv 36 µv -6 dbm -7 dbm
2. BASEBAND FREQUENCY BUILTIN 1000 cps TONE FOR T FREQUENCY H.P. 200CD	RESPONSE READ THIS TEST EXPECTED	ACT	
8KC 16KC V 32KC o 48KC 68KC 90KC At 1	Vithin ±1 db  of the 8 KC level  east 35db from  KC level	0m dbm	#0.2 dbm #1.2 dbm #1.5 dbm #1.7 dbm #1.5 dbm #1.5 dbm -43.8 dbm
3. ANTENNA VSWR	EXPECTED	ACTU	AL
Transmit Antenna Current			
Forward Minimum Reflected Maximum	30µа 10µа	3/4_2	_μa _μa
Receive Antenna Current			
Forward Minimum Reflected Maximum	30μa 10μa		ua ua
	DATE_	22 July 1963	
	TESTE	R Win Delreya	lair
	SUPER	VISOR Frank 9 S	kezireki
	QUALI	TY ASSURANCE	Saucho!
	S	GEEIA Safesta heet 1 of 1	2 degles

# FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET AN/TRC-35 OVERALL TEST

			STATION _	GEL		
Transmission Path	: From Statio	on GEL	to Station _	GAB		
l. R:F. DEVIATION	ON AND BASE	BAND GAI	N	,		
	E	XPECTED	XMTG-	-	TUAL XMTG-	REC#2
Signal level (Ste Signal level (Ste Receiver output Receiver output	p L) (Step I)	-6 dbm bm <u>+</u> 0.5dbr	26 26 -6 n . 0	μν μν dbm dbm	28 28 <b>-</b> 6	_μν _μν _dbm _dbm
2. BASEBAND FRE	QUENCY RE	SPONSE				
FREQUENCY H.P. 200CD	E	XPECTED	XMTG-		rual XMTG-	REC#2
8KC 16KC 32KC 48KC 68KC 90KC	of the last leas	nin ±1 db ne 8 KC evel See 1 t-35db fron Clevel	0 0 +.5 +1 note +2.5 Meter scal	dbm dbm dbm dbm dbm dbm dbm	0 0 +.25 +.125 +.3 Below	dbm dbm dbm dbm dbm dbm
3. ANTENNA VSWI	E	XPECTED		ACT	UAL	
Transmit Anteni	na Current			•		
	Minimum Maximum	30µа 10µа		32 6	µa µa	
Receive Antenna	Current					
	Minimum Maximum	30μa 10μa			_µa _µa	a.
Note= Out of sp	908	DAT	E 21 Ju	ly 1963	77	
,		TEST	TER Seri	30 Di	Davet	0
		SUPE	ervisor Ch	doen for	Howath	
		QUA	LITY.ASSURA	NCE 👤	4.6	11/
			GEE Sheet 1 of 1	TA_	RFelo	with the

### FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

#### DATA SHEET

AN/TRC-35 LINK TEST

		STATION _	GAB	
Transmission Path: From St	ation GAB	to Station _	GEL	
	Tacture.		Y 4	
1. NOISE AND SPURIOUS T	ONES			
FREQUENCY		NOISI	E LEVEL	
BOTH REDEIVERS OUT OF SPEC	CS THROUGH	REC #1	R	EC #2
OUT THE BASEBAND. KC		_43.0 dbm	· <u>-1</u>	5.0 dbm
KC		dbm	_	dbm
68 KC		dbm -35.0 dbm	<del>-</del> 1	dbm 0.0 dbm
				0.0
Note: Record all noise s	signals greate	r than -55 dbm.		
2. BASEBAND FREQUENCY	Y RESPONSE	LINK LEVELS REA	DJUSTED F	OR THEST
TRANSMISSION FREQU	JENCY EXP		ACTU	AL REC #2
8 KC			3 dbm	0 dbm
16 KC			3 dbm	$\frac{40.3}{\text{dbm}}$
32 KC			0 dbm	#0.3 dbm
48 KC 68 KC	1e	vel <u>40.</u>	3 dbm 1 dbm	$\frac{10.8 \text{ dbm}}{12.0 \text{ dbm}}$
00 KC		<u>()</u> _	<u>I</u> dbiii	#2.0 dbiii
90 KC		st 35 db49 KC level	7dbm	<u>-1.9.7</u> dbm
[[ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [			1.0	

Note: It may be necessary to obtain a reasonable average meter indication if fading is present.

DATE	22 JULY 1963
TESTE	OR W. Schreyelais
SUPER	VISOR Frank & Shoopinghi
QUALI	TY ASSURANCE Mindel
CEPTA	Relate to la

Sheet 1 of 1

#### FEDERAL ELECTRIC CORPORATION

#### BIG RALLY II PROJECT

#### DATA SHEET

AN/TRC-35 LINK TEST

	STATION GEL
Transmission Path: From Statio	n GEL to Station GAB
1. NOISE AND SPURIOUS TONE	ES
FREQUENCY	NOISE LEVEL
	REC #1 REC #2
145 TO 68KC KC KC	
12 TO 68 KC	dbm -48 <del>10-51</del> dbm
Note: Record all noise signa	als greater than -55 dbm.
2. BASEBAND FREQUENCY RE	ESPONSE
TRANSMISSION FREQUEN	CY EXPECTED ACTUAL REC #2
0.77.0	
8 KC 16 KC	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
32 KC	of the 8 KC $\frac{7.6}{4.6}$ dbm $\frac{7.25}{4.25}$ dbm
48 KC	level 41 dbm / 6 dbm
68 KC	41.2dbm 41.5dbm
90 KC	At least 35 db43 dbm40 dbm from 8 KC level
Note: It may be necessary indication if fading is	to obtain a reasonable average meter s present.
NOTE & MEASURED AT 2500 SLOT ON SIERRA 1	CYCLEATE 22 JULY 1963
NOTE 2 MEASURMENTS TAKEN FILTERS INSTALLED	
RECEIVERS	SUPERVISOR (India ) Howath
	QUALITY ASSURANCE   Emiliar
	GEELA SIRPLES
	Chart 1 as 1

6-8

	FAULT IND.# 1	FAULT IND. #2	
	FILAMENT CHG OVER	FILAMENT CHG OVFR	<u></u>
	CABINET TEMP	CABINET TEMP	
	ALARM PS FAILURE	ALARM PS FAILURE	
	HIGH VSWR	HIGH VSWR	/
	LOW FWD POWER	LOW FWD POWER	
	FILAMENT REC LIMITS L	FILIMENT REG LIMITS	V
	RECYCLE &	RECYCLE	/
	HEAT EXCHANGER #1	HEAT EXCHANGER # 2	
	LOW LEVEL	LOW LEVEL	
	LOW TEMP	LOW TEMP	
	HIGH TEMP	HIGH TEMP	
	ERY AIR	DRY AIR N/A	
	MOD TRANSFER	MOD TRANSFER	
	MOD FAILURE	MOD FAILURE	
1.5	VSVR	VSWR	
	LOW RF	LOW RF	
3 3 5 +	RECEIVER A B	RECEIVER A B	
	PILOT V PILOT V	PILOT i PILOT 1	,
	NOISE NOISE	NOISE V NOISE	,
			140
100		DATE 1 June 63	10
		TESTER PLANTSOR DC. M. Kous	
	QUALITY AS	SURANCE 79. F. Kicy .	1-7
		7-1	

ID-E

STATION. ID. DATE 7 June, 63	
DUMNY LOAD OPERATION LOAD CALIBRATION FUNTION _O	.K.
PA INTO LOAD OPERATION	<u>.K.</u>

EQUIPMENT INTERLOCK FUNCTION CHECK

#### DENYDRATOR PRESSURE CHECK

ID-E

-		***		
System # 1	READING BEFORE CHECK	5"		
	READING AFTER 2 HR.	-4"		
	TOTAL DROP IN PRESSURE	1"		**
				- 1
SYSTEM # 2				
	READING BEFORE CHECK	5.4"		
	READING AFTER 1 HR.	3.2"		4.4
	TOTAL DROP IN PRESSURE	2.2"		
				Post in
AIF	CONDITIONERS HEATING	AND VENTILATING		
68 K #1 SERIAL # 36	72			
	AUTOMATIC OPERATION _	O.K.		
	MANUAL OPERATION	DiK.		·
68 L #2 SERIAL # <u>36</u>	73			*4
	AUTOMATIC OPERATION _	O.K.		
	MANUAL OPERATION _	Oik.		
	SU	DATE & VIEWE, DESTER GUTTLAND PERVISOR AF. 155	le dons	

#### DEHYDRATOR/PRESSUREZATION UNIT

#### I R VAN WEST

9 June 1963

Press. at beginning of test: 5" of water

Press. after one hour: 1/2 of System of 1/2 System holauser

Press. Drop:

Remarks:

#### I R VAN EAST

Press	at beginning of test: SEE REMARKS
Press.	after one hour:
Press.	Drop:
Inches	of water:

Remarks: \* DEHYORATOR INOPERATIVE SINCE 22 PAY 1963 DUE/

TO DEFECTIVE CENTRIFUCAL SWITCH IN MOTOR.

This ITEM TO BE CHARIED OVER TO AFTO 88 EXCEPTION LIST MARP

DATE	6-9-63
TESTER	E Hall
SUPERVISIOR	K. Was Love.
QUALITY ASSURANCE	R.B. Soll

#### AIR CONDITIONERS

#### I.R VAN WEST

Serial # 3670 Hours 0330.9

Air Conditioning Ventilation Heating

Auto

OK

OK

Manual

OK

OK

Remarks: DRAIN TURE CLOGGED AS SHOWN BY WATER

UNDER BLOWER UNIT

This ITEM REPAIRED 6/12/63 SAP (GEEIN)

Serial # 3671 Hours 7890.3

Air Conditioning Ventilation Heating

Auto ....

OK

OK

Manual

OF

Remarks: PRAIN TUES CLEEGED AS SHOWN BY WATER

CHPER BLOWER UNIT

This ETEM REPAIRED 6/12/63 ARP (GEEIN)

DATE : JUNE 9, 1963

Witnessed by: R. Warkeing

FEC QA: R.B. Soler

#### SAFETY DEVICES

#### I-R VAN WEST

	: [-] 이 [10] [10] [10] [10] [10] [10] [10] [10]
INTERLOCKS	
PA #1 0.K. PA #2 0.K.	Shorting Stick OK
Circuit Breaker Operation:	Revr #1 oic Revr #2 oc Revr #3 oc Revr #4 cc
	Exc. #1 <u>oc</u> Exc. #2 <u>oc</u>
Remarks: Recover 3 + 4 HAV	E AIR SWITCH BYPASSED
BOTH OF AROOF ITEMS	ON KLYSTROW CARRIAGE # OC'S INCPURTING ARE ARE ARE ARE ARE ARRIED BAN APPO 88 ELEPTION LIST
PWR AMP.	Heat Exchange.
Fil Chy Over Cab. Temp. Alarm PS Fail High VSWR	Low Codlant Temp.  Low Temp.  High Temp.
Low Fwd Pwr Fil Reg Limits	Exciter Nor ware.no
Recycle	Modulator Trans.  Modulator Fail.  High VSWR  Low VSWR
RECEIVER "A" FI "1 FI "2	Receiver "B2 FI "1 FI #2
Radio Pilot Noise Amplifier	Radio Pilot Noise Amplifier
	DATE 6-9-63 TESTER Compared to the compared to
	SUPERVISOR R. Manface
	QUALITY ASSURANCE R.B. Sauca

SLRP.

#### SAFETY DEVICES

IR-E

#### I-R VAN EAST

INTERLOCKS		
1771011200113		

PA "1 0K

PA #2 014

CIRCUIT BRENKER OPERATION

Shorting Stick 4K

Revr #1 U

Revr #3
Revr #4

Remarks: 1 RECEIVER 1 + 4 HAVE AIR SWITCH BY PASSED &

#### FAULT INDICATOR PANELS.

PWR AMP.	P. HEAT EX			XCHANGE.		
Fil Chy Over					<u>#1</u>	#2
Cab Temp Alarm P Fail High VSWR	V	=		Low Coolant To Low Temp. Bigh Temp.	emp. U	
Low Fwd Pwr Fil Reg Limits Recycle	7 5ee ~	REMARK #2		EXCI	TER.	
				Modulator Tran Modulator Fail High VWSR Low VSWR		IN CLERATIVE
RECEIVER "A"	FI 1	FI 2		Recember "B	" <u>FI 1 F</u>	<u> </u>
Radio Pilot Noise Amplifier	<u></u>	V		Radio Pilot Noise Amplia	fier	

7-7

#### AIR CONDITIONERS

#### I R EAST VAN

Serial	# 3664	Hours	7827,8

10 June 1963

Air Conditioning

Ventilation

Heating

Auto

OK

OK

OK

Manual

- olc

OK

OK

Remarks:

Serial #3675 Hours 0352, 4

Air Conditioning

Ventilation

Heating

Auto

OK

OK

614

Manual

OK

OKC

OK

Date Tested Inspected by Quality Assurance 6-9-69

R.B. Sreat

ARC.

IC-W

#### BRIL SUPPLEMENTAL TEST DATA SHEET

A.	M-58 Air Conditioner cl	leck	
	Manual Operation	ok X	
	2. Automatic Opera	thon or X7	
	3. Other None	ox LT	
	Remarks:		
		Tester Clatter Ca	1
		S.S. Ffl Garardo	E
		3	,
D.	Andrews Dehydrator Che		1
	1. Pressuration Tea	Min of 20 Sec before recycle	7
		ok /x7	1
	2. Other	ok X/	
	Remarks: Does n	ot meet & Hr. pressure	
	leak t	est	,
		Tostor Robert & Legs	مند
		5.5 Flagarile	4
		www.reg	/
С.	Rel Fault Indicator Che	acks	
	1 Alorn Tests	ox ZX7	
	2. Othor	OK Land	
	Remarks:	불러 하는 경기 보다는 그 사람들이 되어 있다. 그 그 그	,
		(1) 14 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
		Tester Roley Dock	0
		S.S. Uff Sugardo	1
		M. Willef R.763	7
D.	Dunny Lond		
	1. Operational Chec	ok /x/	
	2. 06507	ox (x)	
	Remarkers	7-9	
		a last a lake	ز
		TOSTON DUNCTURA	

		DRII SUPI	PLEMENTAL	TEST DATA SHEE	I	C-E
	1. 58 A	ir Conditioner	chack			
		Manual Operat			OK	/X /
		Automatic Ope			or	/X /
		Other UNIT;			OK	[5]
				MP ACEA, NEEDS	V 13	According to
	E			111 7100 710000		
		BEON RECIAAR			Tost S.S. QA GEEI	William Kitch
D .	Andrew	s Dehydrator (	lkeck		1.	grand a degree
	. 1	Meet 20 Sec. are evedent.	recycle	test but leaks	befo OK	of 20 Sec pro recycle
	2.	Other			. OK	Superior of
		Remarks:				
					Test S.S. QA GEEI	William R Kit
C	Rel Fat	ult Indicator	Ohacics			Section (Section (Sec
		Alaym Tests			OIC	LX
	2.	Other			OK.	London
		Remarks:				
					Test S.S. QA GEELA	William R. His
D .	Dismay 1					jumming .
		Operational (	lliock.			X
	200	Other			W.	American and
		Romarks:				
					Test S.S. QA GEEL	Willam River

#### SAFETY DEVICES

#### GK VAN WEST

O.K. S/N 001

O.K. 5/N 0.02

PA. SHORTING STICK O.K.

RCVR #1 RCVR #2 RCVR #3 RCVR #4

EXC. #1 EXC. #2

REMARKS:

PWR AMP. F.T.	1 FI.2	HEAT EXCHANGE	#1 #2
FIL CHY OVER * 10 / 10 / 10 / 10 / 10 / 10 / 10 / 10	C O.K.	LOW COOLANT TEMP. LOW TEMP. HIGH TEMP.	0K 0K 0K 0K
LOW FWD PWR FIL REG LIMITS 0.	O.K.	EXCITER MODULATOR TANS. MODULATOR FAIL HIGH VWSR LOW VSWR	#1 #2 OK OK OK OK
RECEIVER "A" F	<u> 1 1 2 FI 2 </u>	RECEIVER "B" FI	1 FI 2
RADIO PILOT CON NOISE AMPLIFIER CO	0.K. <u>0.K.</u> 0.K. <u>0.K.</u>	RADIO PILOT OF NOBBE AMPLIFIER	0.6

SUPERVISOR QUALITY ASSURANCE GEEIA

#### AIR CONDITIONERS

GK / I. P. Var.

SERIAL # 3/6/

HOURS Not CORNATIONAL!

**VENTILATION** 

AUTO

OK O.K. OK DK

OK.

REMARKS:

MANUAL

SERIAL # 366/ HOURS 7759

AIR CONDITIONING

VENTILATION

HEATING

AUTO

O.K

D.K.

OK.

MANUAL

O.K.

OK.

REMARKS:

DATE 23 JUNE 63
TESTED SUPERVISOR TURNEWS CO.
QUALITY ASSURANCE TO F Succession

GEEIA

#### DEHYDRATOR PRESSURIZATION UNIT

	GK V	AN WEST PATER
PRESS.	AT BEGINNING OF TEST	: 1.5 65
PRESS.	AFTER ONE HOUR:	4.0 4.0
PRESS.	DROP:	2.5 2.5
REMARK	S <b>:</b>	

PRESS. AT BEGINNING OF TEST: 5 1.25

PRESS. AFTER ONE HOUR: 75 4.0

PRESS. DROP: 475 2.25

INCHES OF WATER:

REMARKS: IEE SSURE drop is excessive

DATE 4 Coly, 63
TESTER
SUPERVISOR
QUALITY ASSURANCE 5.7 32
GEELA

GK-W

#### DUMMY LOAD

OPERATING AND CALIBRATION INSTRUMENT AVAILABLE:	YES	<u>110</u>
GK VAN WEST OK VAN EAST		
PA #1 10.K. PA #1 <u>DK</u>		
PA #2 O.K. S/NOOZ PA #2 UK		

#### ALERTING UNIT OPERATION

GK VAN WEST	GK VAN EAST
LOCAL ALARM O.K.	LOCAL ALARM DIK
POWER ALARM O.K.	POWER ALARM DIA
REMOTE CE ALARM O.K.	REMOTE CE ALARM D.K
REMOTE POWER ALARM	REMOTE POWER ALARM O.K

DATE	1 July, 63
TESTER	Kab Sharman de
SUPERVISOR QUALITY ASSURANCE	1)6/16/20
GEELA	

- GK-E

AIR	CO	ND	ITI	ON	ERS

GK \_ - GF)

SERIAL # 3666

HOURS 8587

AIR CONDITIONING

VENTILATION

HEATING

AUTO MANUAL OIK

REMARKS:

ERIAL # 3667

HOURS 8295

AIR CONDITIONING

VENTILATION HEATING

MANUAL

E. BIK

REMARKS:

GEETA!

DATE 30 June 6 3
TESTED J. June 6 3
SUPERVISOR COSEU & CASE
QUALITY ASSURANCE DOR Joe 2

GK EAST

MAIN LINE CORRENTS

PA #1 CIRCUIT BREAKER 125 AMPS

PHASE 1

I= 0 E Drop

, PHASE 2

I= O E Drop

PHASE 3

I=O E Drop

PA #2 CIRCUIT BREAKER 125 AMPS

PHASE 1

I= O E Drop

PHASE 2

I=D E Drop

PHASE 3

I= O E Drop

"MAIN" CIRCUIT BREAKER 200 AMPS

PHASE 1

I= % OV E Drop

PHASE 2

I= /50 E Drop

PHASE 3

I=/o E Drop

\*\* E Drop = Drop neross breaker

PLASE I PLASE TO PLASE TU T = 135 2 = 140 I = 135

Phase 7 Phase II Phase III Condition Tester

1 = 69 I = 66 I = 66 I = 66 I Supervisor

3 July , 63

GK-E

#### GK WEST

#### MAIN LINE CURRENTS

#### PA #1 CIRCUIT BREAKER 125 AMPS

PHASE I

PHASE 2

PHASE 3

I= O E Drop

I= D E Drop

I= O E Drop

#### PA #2 CIRCUIT BREAKER 125 AMPS

PHASE 1

PHASE 2

PHASE 3

I= O E Drop

I= 0 E Drop

I= O E Drop

#### "MAIN" CIRCUIT BREAKER 200 AMPS

PHASE 1

PHASE 2

PHASE 3

I= % E Drop

I= % E Drop

I= 1/0 E Drop

\* E Drop = Drop across breaker

GEEIA Tester Elacte Site Supervisor

Joseph Quality Assurance

27 June 63

#### SAFETY DEVICES

#### SITE GA MRC-85

	INTERLOCKS PA#1 WDT PF MON #1 WD PA#2 WDT PF MON #2 WDT ETLC #1 WDT EXC #1 WDT ETLC #2 WDT EXC #2 WDT RCVR #1 WDT RCVR #2 WDT RCVR #3 WDT RCVR #4 WDT	
		FAULT INDICATORS PANELS
	POWER AMPLIFIER #1 #2 FIL CHG OVER WDT WDT CAB TEMP WDT WDT ALARM PS FAILURE WDT WDT HIGH VSWR WDT WDT LOW FWD POWER WDT WDT FILAMENT REG LIM WDT WDT RECYCLE WDT WDT	HEAT EXCHANGER #1 #2  LOW COOLANT LEVEL WDT WDT  LOW TEMP WDT WDT  HIGH TEMP WDT WDT  EXCITER #1 #2  MODULATOR TRANSFER WDT WDT  MODULATOR FAIL INOP INOP  HIGH VSWR WDT WDT  LOW RF WDT WDT
The state of	RECEIVER "A" FI-1 FI-2 RADIO PILOT WDT WDT NOISE AMPL WDT WDT	RECEIVER "B" FI-1 FI-2  RADIO PILOT WDT WDT  NOISE AMPLI WDT WDT
		ALERTING UNIT OPERATION
	MRC-85 VAN LOCAL ALARM KG POWER ALARM KG REMOTE CE ALARM KG	LOS BLDG GEN VAN LOCAL ALARM KG REMOTE CE ALARM KG POWER ALARM KG REMOTE CE ALARM KG

DATE 8July 1963
TESTER 9/ KG K (1 Secol SUPERVISOR / CONTROL OF CO

#### ATR CONDITIONERS SITE GA MRC-85

SERIAL #3674	HOURS 7970 AIR CONDITIONING	VENTILATION	HEAT ING		
AUTO: MANUAL:	CWM	CWM CWM	CWM CWM		
REMARKS:					
SERIAL # 3663	HOURS 9775				
	ATR CONDITIONING	VENTILATION ·	HEAT ING		
AUTO: MANUAL:	GWM CWM	CWM CWM	CWM		
DEHYDRATOR PRESSURIZATION UNIT  PRESS. AT BEGINNING OF TEST: PRESS. AFTER ONE HOUR  PRESS. DROP:					
REMARKS: PA #1 PA #2	, RCVR #1, RCVR #2 Line , RCVR #3, RCVR #4 Line	es hold pressure wites will not hold pre	thin Specs.		
DEHYDI	RATOR PUMPS UP TO SUPP	LY PRESSURE EVERY A	5 SECONDS		
	DT DT				
REMARKS:					
		DATE 12 JULY TESTER C. UZZ SUPERVISOR JULY QUALITY ASSUR GEEIA	4 1963 Makken Hill Le RANCE Office Harris Signal		

#### BIG RALLY II PROJECT - DEHYDRATOR PRESSURE CHECK STATION GPA

			A 1303
GPA-GA ANTENNA A GA			
PRE	SS AT START	-0.22	
PRE	SS AT 1/2 HR	.215	
TOT	AL PRESS DROP	.005 lbs/in	.2
ANTENNA B GA			
PRE:	es at start	.22	
PRE	SS AT 1/2 HR	.03	
TOT.	AL PRESS DROP_	.19	
GPA-GAB ANTENNA A GAB			
PRE	SS AT START	.22	
PRE	SS AT 1/2 HR	.215	
TOT	AL PRESS DROP_	.005	
ANTENNA B GAB			
PRE	SS AT START	.22	
PRE	SS AT 1/2 HR	.075	
TOT	AL PRESS DROP	.145	
n.b.: All figures ar given in lbs/s	e q. ins.	DATE 15	9-1-163
		TESTER Since	+ Quina
		1 11	Central
		PERVISOR ///	warring .
	QUALITY A	(1)	0/ 7-20
		GEETA_S/	elau

## FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

#### DATA SHEET

1.

#### 150 KW POWER GENERATING SYSTEM

	STATION_	1.1.	
FREQ	UENCY (See Para. 7)		
Generator 1			
	Name Plate Frequency	cps	
Α.	Steady State Load  Minimum Frequency Reading  Maximum Frequency Reading	<u> </u>	
В.	Sudden Change - Full Load to No Load  Minimum Frequency Maximum Frequency Recovery Time	57 cps 10 cps 2 Seconds	
C.	Sudden Change - No Load to Fuil Load  Minimum Frequency -Maximum Frequency Recovery-Time	cps cps Seconds	
Ger	erator II		
	Name Plate Frequency	<u> </u>	
Α.	Steady State Load  Minimum Frequency Reading  Maximum Frequency Reading	<u> </u>	
В.	Sudden Change - Full Load to No Load  Minimum Frequency  Maximum Frequency  Recovery Time	cps cps seconds	
c.	Sudden Change - No-Load-to-Full-Load		
٠.	Minimum-Frequency Maximum-Frequency Recovery-Time DATE 7 / VA	cps cps Seconds	
	111-1	To be	
	TESTER Lauren	466	
	SUPERVISOR JLE	13000	
	QUALITY ASSURANCE	00	
	abeter	Licraig	

### FEDERAL ELECTRIC CORPORATION BRII/102 BIG RALLY II PROJECT

#### DATA SHEET

#### 150 KW POWER GENERATING SYSTEM

	45.3	-	1	
	20	. 1	).	
STATION_	,3E	1.1	1.	
O I II I I O I 1	4.0	- 0		 

#### 2. LOAD BALANCE (See Para. 8)

Generator	Test I	Test II (Corrected
Phase I	370	Unbalance)
Amperes		
Volts	120	
Volts x Amperes	44400	
Phase II		
Amperes	375	
Volts	120	
Volts x Amperes	45000	
Phase III		
Amperes	340	
Volts	170	
Volts x Amperes	40800.	
Generator II		
Phase I		
Amperes	340	
Volts	120	
Volts x Amperes	40800	
Phase II		
Amperes	350	
Volts	12/17	
Volts x Amperes	42000	
voits a maporos		
Phase III		
Amperes	320	
· Volts	120	
Volts x Amperes	38400	
DA	TE & -line	13
TEST	ER [107]	ichland
SUPERVISO	E	Lefter
QUALITY ASSURANCE	11111	15000
		00
	Waste	1 L. Cray
		1

## FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET

150 KW POWER GENERATION SYSTEM

	1 70	
STATION	111/4	

3.	PHASING (See Para. 9)
	Generator I
	Phase II 120 volts Phase III 120 volts Phase III 120 volts
	Generator II
	Phase II  Phase III  Phase III  Phase III  Phase III
4.	NEUTRAL GROUNDING (See Para. 10)
	Generator I
	Ground Rod to Neutral Terminal OHMS
	Generator II
1	Ground Rod to Neutral TerminalOHMS
	DATE & JUNE 13
	TESTER Lower Control of Land
	SUPERVISOR

QUALITY ASSURANCE 13 9. 150.

Walter L. Craig

### FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

#### DATA SHEET

150 KW DIESEL GENERATOR SYSTEM

	17)	
STATION_	111/	_

5. TERMINAL VOLTAGE (See Para. II)

Percent Voltage Drop (Generator Panel Board Voltage-Terminal Voltage x100% Generator Panel Board Voltage

#### 3 Phase 208 Volts Generator Panel Board Volt. Term. Volts % Volt Drop 17 2 31 1 51 % Feeder I Phase 1 & 2 2100 210 1210 Phase 2 & 3 2.13 212 200 17 Phase 3 & 1 73 120 170 Phase 1 to Neutral 1 120 120 Phase 2 to Neutral 117 Phase 3 to Neutral 1201 120 110 110 213. 209 209 Feeder II Phase 1 & 2 219 210 310 Phase 2 & 3 2.10 290 2147 214 Phase 3 & 1 140 120 119 Phase 1 to Neutral 120 120 Phase 2 to Neutral 120 Phase 3 to Neutral Feeder III Phase 1 & 2 210 2.13 2007 1200 Phase 2 & 3 210 Phase 3 & 1 120 100 114 Phase 1 to Neutral 120 120 110 Phase 2 to Neutral 120 120 Phase 3 to Neutral

D	DATE 8 JUNE 63	
TES	TER CAUTITAL Com	
SUPERVI	SOR 17 16 tons	٢
QUALITY ASSURA	NCE	
	Want PR	•
	Walter & Cray	g

# FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 150 KW POWER GENERATING SYSTEM

			STATION LD
6. GI	ENERATOR TRAN	SFER OPERATION (S	ee Para.  2)
	Generator I		
		Normal Operating Conditions	Conditions New Duty Unit After Transfer
	Voltage Amperage Wattage Frequency	120 300 100 KW 20 CPS	120 300 80 KW - 60 CPS.
	Time in Second	s to Effect Transfer_	18 seconds.
	Generator II		
		Normal Operating Conditions	Conditions New Duty Unit After Transfer
	Voltage Amperage Wattage Frequency	12.0 300 20 MM 60 CBS	120 260 90 KW 100 PS
	Time in Second	s to Effect Transfer_	15 seconds.
		DATE	
		TESTER SUPERVISOR	K-C-Hefen
	Qī	JALITY ASSURANCE	73.8. Boyo
		1	hat PParis

## FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET

150 KW DIESEL GENERATING SYSTEM

,	1 -0		
1	1.1	STATION	
	July:	STATION	

#### 7. PARALLELING TEST (See Para. 13)

Generator I (After Paralleling)

Amps	Amps
Watts	K_Watts
Volts	
Frequency	CPS
Tachometer Reading	RPM

Generator II (After Paralleling)

Amps		180 Amps
Watts		- 35 K Watts
Volts		Volts
Frequency		CPS
Tachometer Readin	g	RPM:

DATE BOWE 63.

TESTER GOVERNO SUPERVISOR

QUALITY ASSURANCE DE DOND

Walter L. Craig

#### 150 KW POWER GENERATING SYSTEM

STATION IR-WEST

F	REQUENCY (See Para. 7)	
	Generator 1	
	Name Plate Frequency	<u>60</u> cps
	A. Steady State Load  Minimum Frequency Reading	60 cps
	Maximum Frequency Reading	<u>60</u> cps
•	B. Sudden Change - Full Load to No Load Minimum Frequency	<u>59</u> cps
	Maximum Frequency Recovery Time	cps Seconds
	C.—Sudden Change - No Load to Full Load Minimum Frequency	cps
	Maximum Frequency Recovery Time	cps Seconds
	Generator II	
	Name Plate Frequency	60 cps
	A. Steady State Load  Minimum Frequency Reading  Maximum Frequency Reading	60 cps
	B. Sudden Change - Full Load to No Load  Minimum Frequency  Maximum Frequency  Recovery Time	57 cps 6.0 cps ⊋ Seconds
	C. Sudden Change - No Load to Fuli Load  Minimum Frequency  Maximum Frequency  Recovery Time	cps cps cps conds
		UNE 1963
	SUPERVISOR L. Mars	Lieures
	QUALITY ASSURANCE R.B. S	piat
	Waster Ha Get	L. Craig
	KG GET	FIR

### FEDERAL ELECTRIC CORPORATION BRII/102 BIG RALLY II PROJECT

#### DATA SHEET

#### 150 KW POWER GENERATING SYSTEM

STATION R-WEST

#### 2. LOAD BALANCE (See Para. 8)

Generator	Test I	Test II (Corrected
Phase I		Unbalance)
Amperes	105	
Volts	120	- 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7
Volts x Amperes	12600	
Dha an II		
Phase II	105	
Amperes	120	
Volts		
Volts x Amperes	12600	
Phase III		
Amperes	100	
Volts	120	
Volts x Amperes	12000	
C		
Generator II		
Phase I	222	
Amperes	220	
Volts	120	
Volts x Amperes	26400	
Phase II	225	
Amperes		
Volts	120	
Volts x Amperes	27000	
Phase III		
Amperes	210	
Volts	120	
Volts x Amperes	25200	
DA	ATE // Jo	NE 1963
TEST	ER COUT	Malle
SUPERVIS	27/	
	011	7
QUALITY ASSURAN	CE 16.42.78	
Ce	laster o	P. Oraig
	0	-+:A
Col	9 66	***

#### FEDERAL ELECTRIC CORPORATION

BRII/103

#### BIG RALLY II PROJECT

#### DATA SHEET

#### 150 KW POWER GENERATION SYSTEM

STATION IR- WEST

3.	PHASING (See Para. 9)
	Generator I
	Phase II Phase III  Phase III  Phase III  Phase III
	Generator II
	Phase II  Phase III  Phase III  I 20 volts  I 20 volts  I 20 volts
4.	NEUTRAL GROUNDING (See Para. 10)
	Generator I
	Ground Rod to Neutral Terminal OHMS
	Generator II
	Ground Rod to Neutral Terminal OHMS
	DAME 11 NEW E 1963
	TESTER CHUMCALL
	SUPERVISOR R. Warlawa
	R.B. Spear
	Cester L. Craip 149 GEEIA
	129 60= EIA

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### FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

#### DATA SHEET

#### 150 KW DIESEL GENERATOR SYSTEM

STATION IR - LU EST

#### 5. TERMINAL VOLTAGE (See Para. II)

Percent Voltage Drop (Generator Panel Board Voltage-Terminal Voltage x100% Generator Panel Board Voltage

#### 3 Phase 208 Volts

		Generate	or Panel				
	Board Volt.		Volt.	Term. Volts 📠 Volt Da			t Drop
		<b>⊅</b> ≢	12 2		# 2	* 1	122
Feeder I	Phase 1 & 2	210	209	209			1
	Phase 2 & 3	2.11	210	210	208		3
	Phase 3 & 1	2,11	207	210	208	1	1
	Phase 1 to Neutral	120	120	119	117		1
	Phase 2 to Neutral	120	120	119	119		i
	Phase 3 to Neutral	120	120	129	119	1_	1
Feeder II	Phase 1 & 2	210	209	209	208		1
	Phase 2 & 3	311	210	210	208	i	3
	Phase 3 & 1	211	209	210	208		1
	Phase 1 to Neutral	120	120	114.			1
	Phase 2 to Neutral	120	120	119	119		/
	Phase 3 to Neutral	130	120	114	119		,
Feeder III	Phase 1 & 2	210	209	入10	209	0	Ö
# 00001 III	Phase 2 & 3	311	210	211	210	O	0
	Phase 3 & 1	110	309	310	209	0	0
	Phase 1 to Neutral	120	120	119	121	1	· 1
	. Phase 2 to Neutral	120	720	119	121	- 1	1 to 1
	Phase 3 to Neutral	130	120	119	123	i	+ 2

DATE JUNE 11, 1963

TESTER CAUMARIEM

SUPERVISOR F. Working

QUALITY ASSURANCE R.B. Speak.

cesater L. Craig

#### FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 150 KW POWER GENERATING SYSTEM

STATION IR- WEST

Generator I			
	Normal Operating Conditions		Conditions New Duty Unit After Transfer-
Voltage Amperage Wattage Frequency	120 336 110 KW 60		120 330 110 KW
Time in Seconds	to Effect Transfer_	9	seconds.
Generator II			and the second
	Normal Operating Conditions		Conditions New Duty Unit After Transfer
Voltage Amperage Wattage Frequency	120 340 105 KW		120 340 105 KW
Time in Seconds	to Effect Transfer	14	seconds

SUPERVISOR & Wastin QUALITY ASSURANCE R.B. Speak. Cexeter L. Craig

#### BRII/106

#### DATA SHEET

#### 150 KW DIESEL GENERATING SYSTEM

STATION IR-W

#### 7. PARALLELING TEST (See Para. 13)

#### Generator I (After Paralleling)

Amps				100	Amps
Watts				17 KW	Watts
Volts'				120	Volts
Frequen	cy		•	6.0	CPS
Tachome	eter Re	ading			_RPM

#### Generator II (After Paralleling)

Amps	70	Amps
Watts	17 KW	Watts
Volts	120	Volts
Frequency '	60	CPS
Tachometer Reading		RPM

DATE 11 JONE, 1963

TESTER CANMALLER

SUPERVISOR F. Wester

QUALITY ASSURANCE R.B. Spisor

Walter L. Craig.

#### 150 KW POWER GENERATING SYSTEM

STATION	1.RE

				1
•	FR	EQU	JENCY (See Para. 7)	
		Gen	erator 1	
			Name Plate Frequency	60 cps
		Α.	Steady State Load  Minimum Frequency Reading  Maximum Frequency Reading	cps cps
		B.	Sudden Change - Full Load to No Load  Minimum Frequency  Maximum Frequency  Recovery Time	cps cps Seconds
		C.	Sudden Change - No Load to Full Load  Minimum Frequency  Maximum-Frequency  Recovery Time	cps cps Seconds
		Gen	erator II	
			Name Plate Frequency	<u></u>
		Α.	Steady State Load  Minimum Frequency Reading  Maximum Frequency Reading	cps cps
		В.	Sudden Change - Full Load to No Load  Minimum Frequency  Maximum Frequency  Recovery Time	/; cps /// cps 
		G.	Sudden Change - No Load to Full Load - Minimum Frequency - Maximum Frequency Recovery Time	cps cps Seconds
			DATE 1/- IVNE	1.3
			TESTER GOW	after
			SUPERVISOR R B S	2027
			QUALITY ASSURANCE 10/3	P 0
		•	Waiter	1. Craig

#### FEDERAL ELECTRIC CORPORATION BRII/102

#### BIG RALLY II PROJECT

#### DATA SHEET

150 KW POWER GENERATING SYSTEM

STATION IR-F

#### 2. LOAD BALANCE (See Para. 8)

Generator	Test I Test II (Corrected
Phase I	Unbalance)
Amperes	240
Volts	120
Volts x Amperes	2800
Phase II	
Amperes	435
Volts	130
Volts x Amperes	2,9200
Phase III	
Amperes	以及5
Volts	<u> 120 ·</u>
Volts x Amperes	7,4600
Generator II	
Phase I	Sa, -
Amperes	713
Volts	170
Volts x Amperes	3/900
Phase II	
Amperes	265
Volts	<u> 120</u>
Volts x Amperes	31800
Phase III	2/10
Amperes	770
Volts	<u> 120.</u>
Volts x Amperes	28800
D	ATE// //// 6.3
TEST	ER Chomallen
SUPERVIS	0 - 1
QUALITY ASSURAN	CE RBSnear
	L PPuni
Ce	beter or craig
(af-	neter L'Craig

#### FEDERAL ELECTRIC CORPORATION

BRII/103

#### BIG RALLY II PROJECT

#### DATA SHEET

#### 150 KW POWER GENERATION SYSTEM

	-	17	1 000	
STATION	1	K	1	

3.	PHASING (See Para. 9)
	Generator I
	Phase II 120 volts Phase III 120 volts Phase III 120 volts
	Generator II
1	Phase II  Phase III  Phase III  Phase III  Phase III
4.	NEUTRAL GROUNDING (See Para. 10)
	Generator I
	Ground Rod to Neutral Terminal OHMS
	Generator II
	Ground Rod to Neutral TerminalOHMS
	DATE 11 JUNE 63
	TESTER COMARCA
	SUPERVISOR P. Winting

QUALITY ASSURANCE RB France
Celaster L. Craig
HG GEETA

8-15

#### FEDERAL ELECTRIC CORPORATION

BRII/104

#### BIG RALLY II PROJECT

#### DATA SHEET

150 KW DIESEL GENERATOR SYSTEM

STATION 1. R. + F

5. TERMINAL VOLTAGE (See Para. II)

Percent Voltage Drop (Generator Panel Board Voltage-Terminal Voltage x100% Generator Panel Board Voltage

#### 3 Phase 208 Volts

**		Generator Panel		
		Board Volt.	Term. Volts	% Volt Drop
Feeder I	Phase 1 & 2 Phase 2 & 3 Phase 3 & 1 Phase 1 to Neutral Phase 2 to Neutral Phase 3 to Neutral	11	1/1   1/2 2/10   2/10 2/1   2/10 2/10   2/10 1/4   1/4 1/4   1/4 1/4   1/4	
Feeder II	Phase 1 & 2 Phase 2 & 3 Phase 3 & 1 Phase 1 to Neutral Phase 2 to Neutral Phase 3 to Neutral	211 211 212 211 212 211 120 120 120 120 120 120	2/0 2/0 2/2 2/1 2/0 2/2 1/6 1/6 1/6 1/6 1/6 1/6	
Feeder III	Phase 1 & 2 Phase 2 & 3 Phase 3 & 1 Phase 1 to Neutral Phase 2 to Neutral Phase 3 to Neutral	- 211 211 - 313 212 - 312 - 211 - 120 120 - 120 120 - 130 120	210 210 212 211 210 219 119 119 117 119 119 119	

	DATE 11 JUNE.	63
	TER TWM	ill.
SUPERV	SOR P. W.	Lein
OHALITY ASSID	NCE RB Sec	ar

Celactin L. Braig

# FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 150 KW POWER GENERATING SYSTEM

STATION.	T 12	/-	
STATION.	1.171	land	,

Generator I			•	
	Normal Operating Conditions		Conditions New Unit After Trans	
Voltage Amperage Wattage Frequency	120 310 110 KW 60		130 300 105 Ki	<u></u>
Time in Seconds	to Effect Transfer_	14	seconds.	
Generator II				
	Normal Operating Conditions		Conditions New Unit After Tra	
Voltage Amperage Wattage Frequency	120 360 110 kW		130 300 185 10	KW
Time in Seconds	to Effect Transfer_	15	seconds.	
	DATE	11/1/	WE, 63	
	TESTER	.000	Mallon	
	SUPERVISOR ALITY ASSURANCE	200	Vu Ven	

HO GEEIA

DATA SHEET

150 KW DIESEL GENERATING SYSTEM

STATION 1. R.E.

BRII/106

#### 7. PARALLELING TEST (See Para. 13)

Generator I (After Paralleling)

Amps	180	Amps
Watts	50	Watts
Volts'	120	Volts
Frequency	120	_CPS
Tachometer Reading		_RPM

#### Generator II (After Paralleling)

Amps		180 Amps
Watts		Watts
Volts		
Frequency		
Tachometer-Re	ading	RPM ·

	DATE	11 JUNE 63
	TESTER.	11 June 63
	SUPERVISOR .	R. Warter
QUALITY	ASSURANCE .	RB Spear
	C	chetu L. Craig.
	KL	2 GEEIA

#### 150 KW POWER GENERATING SYSTEM

STATION / C West

1. FF	REQU	UENCY (See Para. 7)	
	Gen	merator l	
		Name Plate Frequency	60 cps
	Α.	Steady State Load  Minimum Frequency Reading  Maximum Frequency Reading	60 cps
	В.	Sudden Change - Fill Load to No Load  Minimum Frequency	3-9 cps
		Maximum Frequency Recovery Time	cps 2 Seconds
	G	Sudden Change No Load to Full Load  Minimum Frequency  Maximum Frequency  Recovery Time	cps cps Seconds
	Gen	nerator II	60 cps
		Name Plate Frequency	cps
	Α.	Minimum Frequency Reading Maximum Frequency Reading Maximum Frequency Reading	60 cps
	В.		cps cps Seconds
	6,-	Sudden Change - No Load to Full-Load  Minimum Frequency  Maximum Frequency  Recovery Time	cps cps Seconds
		TESTER SUPERVISOR	Halurdo
		QUALITY ASSURANCE CEELS (1) ALLE	16767

### FEDERAL ELECTRIC CORPORATION BRII/102 BIG RALLY II PROJECT

#### DATA SHEET

#### 150 KW POWER GENERATING SYSTEM

STATION IC WEST

AD BA	ALANCE (See Para. 8)			
Gene	erator Phase I	Test I	Test II(C	orrected (nbalance)
	Amperes Volts	210 120 35400		
	Volts x Amperes	37700		
	Phase II			
	Amperes Volts Volts x Amperes	30.5 120 36600		
	Phase III			
	Amperes Volts Volts x Amperes	290 120 34800		
Gene	erator II			
	Phase I			
	Amperes	295		
	Volts	120 35400		
	Volts x Amperes	17700		
	Phase II Amperes Volts Volts x Amperes	300 120 36000		
	Phase III			
	Amperes Volts Volts x Amperes	290 120 34800		
	DAT	E 14/1	mp 63	
	TESTE	1 1/1/	Mys	2
	SUPERVISO	R 7 9/	Xaluro	10
	QUALITY ASSURANC	E Will	1/1×2	The
	GEELA	Wat	IR Aly	lain

#### FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET

#### 150 KW POWER GENERATION SYSTEM

		STATION	TC WEST
3.	PHASING (See Para. 9)		
	Generator I		
	Phase II Phase III	120_vclts 120_volts 120_volts	
	Generator II		
	Phase I Phase III	120 volts 120 volts 120 volts	
4.	NEUTRAL GROUNDING (See Pa	ara. 10)	
	Generator I	•	
	Ground Rod to Neutral Ter	minal0.1	OHMS
	Generator II		
	Ground Rod to Neutral Ter	minal 0.1	OHMS
	D	ATE MARKET	63
	TES' SUPERVIS		15.10
	QUALITY ASSURAN	1 11 (11)	266
		CATINUL ATE	Raig

## FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET

#### 150 KW DIESEL GENERATOR SYSTEM

STATION IC WEST

5. TERMINAL VOLTAGE (See Para. II)

Percent Voltage Drop (Generator Panel Board Voltage-Terminal Voltage x100% Generator Panel Board Voltage

		3 Phase 208 Volt	s	
		Generator Panel Board Volt.	Term. Volts	% Volt Drop
Feeder I	Phase 1 & 2 Phase 2 & 3 Phase 3 & 1 Phase 1 to Neutral Phase 2 to Neutral Phase 3 to Neutral	908     208       208     208       208     208       120     120       120     120       120     120	208     208       208     208       208     208       208     208       120     120       120     120       120     120	NO NE
Feeder II	Phase 1 & 2 Phase 2 & 3 Phase 3 & 1 Phase 1 to Neutral Phase 2 to Neutral Phase 3 to Neutral	208     208       208     208       208     208       120     120       120     120       120     120	208     208       206     208       208     208       120     120       120     120       120     120	HOVE
Feeder III	Phase 1 & 2 Phase 2 & 3 Phase 3 & 1 Phase 1 to Neutral Phase 2 to Neutral Phase 3 to Neutral	208     208       208'     208       208     208       208     208       120     120       120     120       120     120	208     208       208     208       208     208       120     120       120     120       120     120	A CONTRACTOR OF THE PARTY OF TH
		1 2	1 2	

DATE

TESTER

SUPERVISOR

QUALITY ASSURANCE

GEEIA

#### FEDERAL ELECTRIC CORPORATION

#### BRII/105

#### BIG RALLY II PROJECT

#### DATA SHEET

#### 150 KW POWER GENERATING SYSTEM

Generator I			.7
	Normal Operating Conditions		Conditions New Dunit After Transfe
Voltage Amperage Wattage Frequency	126 245 95 KW		120 245 95 KW 4 60
	s to Effect Transfer	14	seconds.
Generator II			
Generator II	Normal Operating Conditions		
Voltage Amperage Wattage Frequency			
Voltage Amperage Wattage Frequency	120 300 103 K \td	13	120 300 103 KW
Voltage Amperage Wattage Frequency	120 300 103 K \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	13	120 300 193 KW
Voltage Amperage Wattage Frequency	120 300 103 K \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		300 193 KIV 60

BRII/106

150 KW DIESEL GENERATING SYSTEM

STATION	IC	WEST

#### 7. PARALLELING TEST (See Para. 13)

#### Generator I (After Paralleling)

Amps	105	Amps
Watts	25	Watts
Volts	120	Volts
Frequency	60	CPS
-Tachometer-Reading-		-RPM

#### Generator II (After Paralleling)

Amps	_ 105	Amps
Watts	25	KW Watts
Volts	120	Volts
Frequency	60	CPS
Tachometer-Reading-		RPM-

	DATI	14 June 1963
	21121	0.100 01111
	TESTER	2 CHANALAA
		-JAK (11. in 121
	SUPERVISOR	7 41210110110
	JOI BILVIDON	11-11-10 - 401
VTLIATIO	ASSURANCE	William Kan With
MOUTH	ADDUTTITUE	
	O TOTOTE A	11/11/11/12
	GEEIA	William of Mary

#### 150 KW POWER GENERATING SYSTEM

EAST IC STATION\_ 1. FREQUENCY (See Para. 7) Generator 1 60 Name Plate Frequency cps Steady State Load Minimum Frequency Reading срв 60 Maximum Frequency Reading cps 125KW Sudden Change - Full Load to No Load B. Minimum Frequency срв Maximum Frequency cps Recovery Time Seconds C. Sudden Change - No Load to Full Load Minimum-Frequency cps Maximum Frequency cps Recovery-Time Seconds Generator II 60 cps Name Plate Frequency Steady State Load Minimum Frequency Reading cps Maximum Frequency Reading cps 125Hw Sudden Change - Fall Load to No Load B. Minimum Frequency cps Maximum Frequency cps Recovery Time Seconds C. Sudden-Change - No Load to Full Load Minimum-Frequencycps Maximum Frequency cps Recovery-Time Seconds DATE TESTER SUPERVISOR ' QUALITY ASSURANCE

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### FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

#### DATA SHEET

150 KW POWER GENERATION SYSTEM

STATION_	10	FAR	7
DIVITOR			

		4.00
3.	PHASING (See Para. 9)	
	Generator I	
	Phase II	
	Generator II	
	Phase II 120 volts Phase III 120 volts Phase III 120 volts	
4.	NEUTRAL GROUNDING (See Para. 10)	
	Generator I	
	Ground Rod to Neutral Terminal	OHMS
	Generator II	
	Ground Rod to Neutral Terminal	OHMS

DATE 15 June 1963	7
TESTER	
SUPERVISOR 7 9 Sulardo	
QUALITY ASSURANCE Willia K. His	
GEETA WAITE GREEK	

### FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

#### DATA SHEET

150 KW DIESEL GENERATOR SYSTEM

STATION 16 Fast

5. TERMINAL VOLTAGE (See Para. II)

Percent Voltage Drop (Generator Panel Board Voltage-Terminal Voltage x100% Generator Panel Board Voltage

#### 3 Phase 208 Volts Generator Panel Term. Volts % Volt Drop Board Volt. 208 208 208 Feeder I Phase 1 & 2 210 208 210 208 Phase 2 & 3 208 209 Phase 3 & 1 120 120 120 120 Phase 1 to Neutral 120 120 Phase 2 to Neutral 120 120 120 Phase 3 to Neutral 208 203 Feeder II Phase 1 & 2 208 10 210 Phase 2 & 3 208 20% Phase 3 & 1 120 Phase 1 to Neutral Phase 2 to Neutral Phase 3 to Neutral 205 205 200 8 Feeder III Phase 1 & 2 210 208 Phase 2 & 3 208 208 208 Phase 3 & 1 120 120 Phase 1 to Neutral 120 . Phase 2 to Neutral Phase 3 to Neutral 2 2 DATE. TESTER SUPERVISOR QUALITY ASSURANCE

· GEETA

#### FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 150 KW POWER GENERATING SYSTEM

STATION_	10	Fas	f
0 111 1 011	_		

			STAT	ION /C tast
. GEI	NERATOR TRANS	FER OPERATION (S	ee Para	. 12)
	Generator I			•
		Normal Operating Conditions		Conditions New Duty Unit After Transfer
	Voltage Amperage Wattage Frequency	120 245 95 KW 60	1,	130 245 95 KW
	Time in Seconds	to Effect Transfer	10	seconds.
	Generator II			
		Normal Operating Conditions		Conditions New Duty Unit After Transfer
	Voltage Amperage Wattage Frequency	120 245 95 KW		120 245 95 KW
	Time in Seconds	to Effect Transfer_	4	seconds
		DATE	15	Tune 1963
	1"	TESTER SUPERVISOR	-11	Goefar do
	QU	ALITY ASSURANCE	Wille	1/1× 2/15
		GEEIA 6	Walter	J. Cara

# FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 150 KW DIESEL GENERATING SYSTEM

STATION 1C Fast

#### 7. PARALLELING TEST (See Para. 13)

Generator I (After Paralleling)

Amps	Amps
Watts	Watts
Volts	
Frequency	CPS
Tachometer Reading	RPM

#### Generator II (After Paralleling)

Amps		105	Amps
Watts		25	Watts
Volts		119	Volts
Frequency		60	_CPS
Tachometer Rea	ding		<b>ERPM</b>

DATE 15 June 1963

TESTER

SUPERVISOR FALLAGAZDO

QUALITY ASSURANCE William POLIS

GEFIA Watter Cruig

#### 150 KW POWER GENERATING SYSTEM

STATION G.K-I.C.

FI	REQU	JENCY (See Para. 7)
	Gen	erator l
		Name Plate Frequency bD cps
	Α.	Steady State Load  Minimum Frequency Reading  Maximum Frequency Reading  LO cps  bo cps
	В.	Sudden Change - Full Load to No Load  Minimum Frequency Maximum Frequency Recovery Time  57 cps b3 cps 5 Seconds
	-c	Sudden-Change No Load to Full Load  -Minimum-Frequency cps
		-Maximum-Frequency cps -Recovery Time Seconds
	Gen	erator II
		Name Plate Frequency cps
	Α.	Steady State Load  Minimum Frequency Reading  Maximum Frequency Reading  bo cps  bo cps
	B.	Sudden Change - Full Load to No Load  Minimum Frequency Maximum Frequency Recovery Time  59 cps b/ cps 2 Seconds
	<del>C</del>	-Sudden-Change No Load to Full Load -Minimum-Frequency cps -Maximum-Frequency cps -Recovery Time Seconds
		TESTER Civilian -
		SUPERVISOR SUPERVISOR
		QUALITY ASSURANCE 10 6 1200
		GET H Walter Chaig

### FEDERAL ELECTRIC CORPORATION BRII/102 BIG RALLY II PROJECT

#### DATA SHEET

150 KW POWER GENERATING SYSTEM

STATION G.K-IC.

#### 2. LOAD BALANCE (See Para. 8) .

Generator	r. I	Test I	Test II (Corrected
Pha	se I		Unbalance)
	Amperes	135	
	Volts	120	
	Volts x Amperes	16200	
Pha	se II		
	Amperes	135	
	Volts	120	
	Volts x Amperes	16200	
Pha	se III		
	Amperes	125	Winners College Colleg
	Volts	121	
	Volts x Amperes	15125	
Generator			
Pha	seI	111-	
ender a r	Amperes	165	
	Volts	120	
	Volts x Amperes	19800	
Pha	se II		
1 110	Amperes	160	
	Volts	120	
	Volts x Amperes	19200	
Pha	se III		
	Amperes	150	
	Volts	120	
	Volts x Amperes	18000	
	DA	TE 25 V	UNE 63
	TEST	//	tah lice
	SUPERVISO	11	1620 reter
	QUALITY ASSURANCE	11 11 1	isero
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		Wall	ter Creary
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## FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

#### DATA SHEET

150 KW POWER GENERATION SYSTEM

STATION GK-IC

3.	PHASING (See Para. 9)	
	Generator I	
	Phase II  Phase III  Phase III  120 volts  120 volts	
	Generator II	
٠	Phase II  Phase III  Phase III  Phase III  Phase III	
4.	NEUTRAL GROUNDING (See Para. 10)	
	Generator I	
	Ground Rod to Neutral Terminal OHMS	
	Generator II	
	Ground Rod to Neutral Terminal OHMS	•
1		
	DATE 25 JUNE 63	
	TESTER GOTHER G.	

SUPERVISOR \_\_\_\_

QUALITY ASSURANCE 13 8 136-4.4

Waiter Cray

### FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

#### DATA SHEET

#### 150 KW DIESEL GENERATOR SYSTEM

STATION 6K-1C

#### 5. TERMINAL VOLTAGE (See Para. II)

Percent Voltage Drop (Generator Panel Board Voltage-Terminal Voltage.x100% Generator Panel Board Voltage

#### 3 Phase 208 Volts

		Generator Panel		
		Board Volt.	Term, Volts	% Volt Drop
		#1   # ス	#1  #2	姓 1 本之
Feeder I	Phase 1 & 2	205 205	202 202	3% 20%
	Phase 2 & 3	205 205	204 204	170/190
	Phase 3 & 1	205 205	302 302	2% 20%
	Phase 1 to Neutral	120 120	118 118	20/0 20/0
	Phase 2 to Neutral	120 120	119 119	190 170
•	Phase 3 to Neutral	130 130	119 119	10/2/10/2
				107 107
Feeder II	Phase 1 & 2	205 205	202 302	10/10
	Phase 2 & 3	305 305	204 304	10/0 10/0
	Phase 3 & 1	205 205	202 202	20/0 2010
	Phase 1 to Neutral	120 120	117 117	2500 250
	Phase 2 to Neutral	120: 120	118 118	2% 2%
	Phase 3 to Neutral	120 120	118 118	20% 20%
Feeder III	Phase 1 & 2	205 205	204 204	19/0 /0/0
	Phase 2 & 3	205 205	204 204	190100
	Phase 3 & 1	305 305	203 203	190100
	Phase 1 to Neutral	120 120	118 118	20/0 20/0
	Phase 2 to Neutral	120 120	119 119	1901/70
	Phase 3 to Neutral	120 1130	119 119	1701170

TESTER COMMALCE
SUPERVISOR CAROLIC STREET

QUALITY ASSURANCE 9.5 %

Waiter Craig

#### DATA SHEET

150 KW POWER GENERATING SYSTEM

CF.	NER ATOR TRANS	FER OPERATION (S	STAT	GH-I.C.
	Generator I	The of bigarion (c	,cc r ara	
		Normal Operating Conditions		Conditions New Duty Unit After Transfer
	Voltage			
	Amperage Wattage	120		120
	Frequency	- 75 KW		65 HN
	Time in Seconds		00	seconds.
	Generator II		20.	
		Normal Operating Conditions		Conditions New Dut Unit After Transfer
	Voltage		- 27	
	Amperage	110		110
	Wattage Frequency	200-HW		60 KW
	Time in Seconds	to Effect Transfer_	1	seconds.
			10	
		Tester DATE	Co.	real le
72		Date TESTER	25/11	VE, 63
		SUPERVISOR	Charles (	sell & Carter
	QU.	ALITY ASSURANCE	17.8	10000
٠.		6	Vall	Tr Chaig
				/

BRII/106

DATA SHEET

150 KW DIESEL GENERATING SYSTEM .

STATION G.K.-I.C.

#### 7. PARALLELING TEST (See Para. 13)

Generator I (After Paralleling)

Amps	· · · · · · · ·	50	Amps
Watts	_	17 K	Watts
Volts	_	110	Volts
Frequency	_	60	CPS
Tachometer Reading-		19	RPM

#### Generator II (After Paralleling)

Amps	_50 Amps
Watts	
Volts	Volts
Frequency	bD CPS
-Tachometer Reading	RPM-

	DATE	27 JUNE, 63
	TESTER.	Clotholler
	SUPERVISOR	Sugar Cartas
QUALITY	ASSURANCE .	77 8 1000
		Clatter Craig.
		. /

#### 150 KW POWER GENERATING SYSTEM

STATION G.K.-G.A.

. FI	REQU	UENCY (See Para. 7)	
	Gen	nerator l	
		Name Plate Frequency	<u>60</u> cps
	Α.	Steady State Load  Minimum Frequency Reading  Maximum Frequency Reading	
•	в.	Sudden Change - Full Load to No Load Minimum Frequency	56 cps
		Maximum Frequency Recovery Time	25 Seconds
	C.	Sudden-Change No Load to Full Load Minimum Frequency Maximum Frequency	cps
		Recovery-Time	Seconds
	Gen	nerator II	
		Name Plate Frequency	
8	Α.	Steady State Load  Minimum Frequency Reading  Maximum Frequency Reading	60 cps
	В.	Minimum Frequency Maximum Frequency	595 cps
	-C	Sudden Change No Load to Full Load Minimum Frequency	2.5 Seconds
		Maximum Frequency  Recovery Time  DATE 25 JUNE	cps Seconds
		TESTER Lione	a. L.C.
		SUPERVISOR	ABORD OF
		QUALITY ASSURANCE 70. P.	- Our
		Wall	y Charg

### FEDERAL ELECTRIC CORPORATION BRII/102 BIG RALLY II PROJECT

#### DATA SHEET

#### 150 KW POWER GENERATING SYSTEM

STATION GK/GA.

#### 2. LOAD BALANCE (See Para. 8)

Generator Phas		720 120 120 26 400	Test II(Co	orrected nbalance)
Phas	se II Amperes Volts Volts x Amperes	220 120 26400		
Phas	se III Amperes Volts Volts x Amperes	200 120 24000		,
Generator Phas		1230 120 27600		
Phas	se II Amperes Volts Volts x Amperes	225 <del>120</del> 27000		
	DA' TESTE SUPERVISO	ER Livite	21/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/	Luter
Ω	UALITY ASSURANC	Walle	- Gra	9

BRII/103

#### BIG RALLY II PROJECT

#### DATA SHEET

150 KW POWER GENERATION SYSTEM

STATION G-K-IC

3.	PHASING (See Para. 9)
	Generator I
	Phase II 120 volts Phase III 120 volts
	Generator II
	Phase II  Phase III  Phase III  Log volts
4.	NEUTRAL GROUNDING (See Para. 10)
	Generator I
	Ground Rod to Neutral Terminal OHMS
	Generator II
	Ground Rod to Neutral Terminal OHMS
1	
	DAME 25 JUNE 63

TESTER\_

SUPERVISOR.

QUALITY ASSURANCE.

207

120

## FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

#### DATA SHEET

#### 150 KW DIESEL GENERATOR SYSTEM

STATION GK-GA

5. TERMINAL VOLTAGE (See Para. II)

Phase 1 & 2

Phase 2 & 3

Phase 3 & 1

Phase I to Neutral

Phase 2 to Neutral Phase 3 to Neutral

Feeder I

Feeder II

Feeder III

Percent Voltage Drop (Generator Panel Board Voltage-Terminal Voltage x100% Generator Panel Board Voltage

207

205

120

120

3 Phase 208 Volts Generator Panel

#### Board Volt. Term. Volts % Volt Drop #2 #12 Phase 1 & 2 203 217 Phase 2 & 3 205 Phase 3 & 1 202 207 Phase 1 to Neutral 120 120 Phase 2 to Neutral 120 120 Phase 3 to Neutral 120 120 120 Phase 1 & 2 206 207 Phase 2 & 3 207 207 107 207 205 304 Phase 3 & 1 202 120 170 Phase I to Neutral 119 Phase 2 to Neutral 120 120 Phase 3 to Neutral 120 120 120 120

207

120

20020203

100

- 1	DATE 25 JUNE 63		
	TESTER GUBICCO	1	
	SUPERVISOR Sundit Service	er	and a
QUALI	TY ASSURANCE 104 10200		
	Walter Crang		

### FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET

#### 150 KW POWER GENERATING SYSTEM

	NSFER OPERATION (See F	40)
Generator I		• • •
37-34	Normal Operating Conditions 120	Conditions New I
Voltage Amperage Wattage Frequency	325 96KW 60CPS.	295 70 KM
Time in Second	ls to Effect Transfer/	3 seconds.
Generator II		
	Normal Operating Conditions	Conditions New I Unit After Trans
Voltage	118	118
Amperage Wattage	330 95 KW. 60 CPS.	330 93 KW 60 (P
Frequency	/	tana arang a
Time in Second	is to Effect Transfer	seconds.
	2	5-/11- 12
	DATE	5 LUNE, 63.
	TESTER	worden
	SUPERVISOR	markle & theile
0	UALITY ASSURANCE . 19.	7. 12000.

BRII/106

#### BIG RALLY II PROJECT

#### DATA SHEET

#### 150 KW DIESEL GENERATING SYSTEM

STATION G.K.-G.A.

#### 7. PARALLELING TEST (See Para. 13)

Generator I (After Paralleling)

Amps	120 Amps
Watts	30 K Watts
Volts	
Frequency	60_CPS
Tachometer Reading	RPM—

#### Generator II (After Paralleling)

Amps	130 Amps
Watts	35KWatts
Volts	
Frequency	6D_CPS
Tachometer Reading	RPM-

DATE 25 VUNE, 63

TESTER GOTRALL

SUPERVISOR BOSO.

QUALITY ASSURANCE BOSO.

6.A.

BRII/101

# FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET

#### 150 KW POWER GENERATING SYSTEM

				•	
			STATION_	GA	1
		4			
				1	
I. FR	LEQU	JENCY (See Para. 7)			
	_				
	Gen	erator l			
				(0	
		Name Plate Frequency		60	_cps
	Α.	Steady State Load		10	
		Minimum Frequency Read		60	_cps
		Maximum Frequency Read	ling	60	cps
	B.	Sudden Change - Full Load to No	Load	50	
		Minimum Frequency		59	cps
		Maximum Frequency		0.1.	срв
		Recovery Time		3	_Seconds
			9		
- × -	-C	-Sudden-Change No Load to Ful	1-Load		
		Minimum-Frequency		-	cps
		Maximum Frequency		X	cps
• •	•	Recovery Time		· <del>-/</del>	Seconds
				10	
	Gen	erator II			
				10	
		Name Plate Frequency		60	_ cps
	Α.	Steady State Load		60	
		Minimum Frequency Read	ing	60	cps
		Maximum Frequency Read	ling	60	срв
	_				
	B.	Sudden Change - Full Load to No	o Load	59	`
		Minimum Frequency		61	cps
		Maximum Frequency		3	cps
		Recovery Time		)	Seconds
	_				
**	-C,-	Sudden-Change-No-Load-to-Ful	i-Loa.d-	9 2	
		-Minimum-Frequency-			cps
		-Maximum-Frequency			Срв
		-Recovery Time	. ~	1	Seconds
		DA	re 12 Ju	15 19	163
			fr Colon	Halelie	
		TESTE	CR - Yakete /	1 despose	
		SUPERVISO	R land	-Mlan	er port
			Vo Will	Pan Ri	PA
		QUALITY ASSURANC	E PRIME I	ies vivel	<u>-7</u>
		A TREET A	11/11/11	1/	
		GEEIA	/ lum		UNG

STATION GA

#### BIG RALLY II PROJECT

#### DATA SHEET

#### 150 KW POWER GENERATING SYSTEM

NCE (See Para. 8)		
hase I Amperes Volts Volts x Amperes	355 120 22600	Test II(Corrected Unbalance)
hase II Amperes Volts Volts x Amperes	345 120 41400	
hase III Amperes Volts Volts x Amperes	340 120 38400	
hase I Amperes Volts Volts x Amperes hase II Amperes Volts Volts Volts	34.0 130 44200 345 130 44850	
TESTEI SUPERVISOF QUALITY ASSURANCE	Jank Jank	1 1963 Waverp of
	nase I Amperes Volts Volts x Amperes  hase II Amperes Volts Volts x Amperes  hase III Amperes Volts Volts x Amperes  for II hase I Amperes Volts Volts x Amperes  volts Volts x Amperes  hase II Amperes Volts Volts x Amperes  hase III Amperes Volts Volts x Amperes  hase III Amperes Volts Volts x Amperes  hase III Amperes Volts Volts x Amperes  DAT TESTER  SUPERVISOR	or I Amperes 355 Volts Volts x Amperes 345 Volts Volts x Amperes 345 Volts Volts x Amperes 340 Nase III Amperes 340 Volts X Amperes 38400  or II Amperes 38400  or II Amperes 340 Volts x Amperes 340 Volts x Amperes 340 Volts x Amperes 345 Volts Volts x Amperes 345 Volts Volts X Amperes 345 Volts X Amperes

# FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

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#### DATA SHEET

150 KW POWER GENERATION SYSTEM

			STA	TION	GA	<del></del>
. PH	ASING (See Par	ra. 9)			1	
	Generator I			.,		
	Phase I Phase II Phase III		120 120 120	volts		
	Generator II					
	Phase I Phase II Phase III		120 120 120	volts		
4. NE	UTRAL GROUN	IDING (See Bo	201	Γ.		
r. NE		iDING (See Pa	ira. 10)			
	Generator I					
	Ground Rod to	Neutral Terr	minal	1	OHMS	
	Generator II					
	Ground Rod to	Neutral Terr	minal .	1	OHMS	
						•

DATE 12 July 1963

TESTER CAMPAGE

SUPERVISOR Fait Manager of

QUALITY ASSURANCE CETA MATTER CARP

## FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

#### DATA SHEET

#### 150 KW DIESEL GENERATOR SYSTEM

STATION GA

#### 5. TERMINAL VOLTAGE (See Para. II)

Percent Voltage Drop (Generator Panel Board Voltage-Terminal Voltage x100% Generator Panel Board Voltage

#### 3 Phase 208 Volts

		Genera	ator Panel				
		Boar	d Volt.	Term	. Volts	% Vol	t Drop
		1/	1/2	iF I	#2	方	112
Feeder I	Phase 1 & 2	210	210	209	209	48	7.8
1	Phase 2 & 3	210	210	210	210	_ 0	0
	Phase 3 & 1	209	209	209	209	0	0
	Phase 1 to Neutral	120	120	120	120	0	0
	Phase 2 to Neutral	120	120	120	120	0	0
	Phase 3 to Neutral	120	120	120	120	0	0
Feeder II	Phase 1 & 2	210	: 210	209	209	.7.8	1.8
	Phase 2 & 3	210	210	210	210	0	0
	Phase 3 & 1	209	209	209	209	0	0
	Phase 1 to Neutral	120	119	119	119	.83	0
	Phase 2 to Neutral	120	120	120	120	_ 0	. 0
•	Phase 3 to Neutral	120	120	120	120	0	0
Feeder III	Phase 1 & 2	210	210	209	209	18	1.8
2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	Phase 2 & 3	210	210	210	210	0	0
	Phase 3 & 1	209	209	209	209	0	0
	Phase I to Neutral	120	119	119	119	,83	.0
	Phase 2 to Neutral	120	120	120	120	0	0
	Phase 3 to Neutral	120	120	120	1/20	- 0	0

DATE 12 July 1963
TESTER GETA CONTROL OF CREY

OUALITY ASSURANCE Sandell

GEETA CONTROL OF CREY

# FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 150 KW POWER GENERATING SYSTEM

SE A ETONI GA

		STA'	TIONGA
GENERATOR TRA	ANSFER OPERATION	(See Para	a. 12)
Generator I			10 de
• 5	Normal Operating	g	Conditions New Du Unit After Transfe
Voltage .	120	_	120
Amperage Wattage	<u>315</u> 116	• • • • • • • • • • • • • • • • • • • •	320 125
Frequency	60		60
Time in Secon	nds to Effect Transfer	1	seconds.
	i		
Generator II			
T	Normal Operating	g •	Conditions New Du Unit After Transfe
Voltage	120		120
Amperage Wattage	317		310 113
Frequency	60		60
Time in Secon	nds to Effect Transfer	15	seconds.
			- 1
•	DAT	E 12	July 1963
	TESTE	R TOUT	Maple
	SUPERVISO	R Jack	Waverport.
	QUALITY ASSURANCE	E Mayo	Reinille D
		1 . /-	A- 1/- '

### BRII/106

## BIG RALLY II PROJECT

#### DATA SHEET

150 KW DIESEL GENERATING SYSTEM

		•		
. '		STATION	GA	
7.	PARALLELING TEST (See Para. 13)	19		
	Generator I (After Paralleling)			
	Amps Watts	180 55K	_Amps _Watts	
	Volts	120	Volts	
	Frequency Tachometer Reading	60	_CPS _RPM	
		.,		
	Generator II (After Paralleling)			
	Amps	190	Amps	
	Watts	- 60K	Watts	
	Volts	120	_Volts:	
	Frequency	60	_CPS	21
	Tachometer Reading		RPM-	

DATE 12 JULY 1963
TESTER SUPERVISOR Superpost
QUALITY ASSURANCE Standard Clarge
GEETA MAILY TO CLARGE

#### BRII/111

#### BIG RALLY II PROJECT

#### DATA SHEET

#### 60 KW POWER GENERATING SYSTEM

STATION GPA System 1

#### FREQUENCY (See Para. 7)

Generator I			4	
	Name Plate Fre	quency _	60	cps
	quency Reading quency Reading	_	60	.cps
B. Sudden Change -  Minimum Free  Maximum Free  Recovery Tim	quency	<u>.d</u>	59 61 2	cps cps Seconds
G.—Sudden Change—  -Minimum Free  -Maximum Free  -Recovery Tim	quency	<u>-</u>		cps cps Seconds
Generator II				
•	Name Plate Fre	quency	60	_cps
	d quency Reading quency Reading		60	_cps
B. Sudden Change -  Minimum Fre  Maximum Fre  Recovery Time	quency quency	ad	59 61 3	_cps _cps _Seconds
C. Sudden Change  -Minimum Fre  -Maximum Fre  -Recovery-Time	quency_	<u>ad</u>		cps cps Seconds
	DATE	12 Jt	ıly 1963	_
OTTA	TESTER - SUPERVISOR - LITY ASSURANCE -	Joseph M. Bou	elen cher	
QOA.	GEETA	Hitty X	Sain	

BRII/112

#### BIG RALLY II PROJECT

#### DATA SHEET

#### 60 KW POWER GENERATING SYSTEM

STATION GPA System #1

LOAD BALANCE (See Para. 8)		
Generator I		
	Test I (Co	Test II prrected Unbalance)
Phase I	7.50	
Amperes Volts Volts x Amperes	150 120 18000	120 15360
Phase II		
Amperes Volts Volts x Amperes	12000	129 120 15480
Phase III		7.7
Amperes Volts Volts x Amperes	118 120 14160	130 120 15600
Generator II		
Phase I		
Amperes Volts Volts x Amperes	145 120 17400	128 120 15360
Phase II		
Amperes Volts x Amperes	105 120 12600	129 120 15480
Phase III		
Amperes Volts Volts x Amperes	135 120 16200	130 120 15600
	DATE 12 July	1963
	TESTER LIVING	Lle
S	UPERVISOR Jugges	Kergyard
QUALITY	ASSURANCE - For	Men .
	CERTA PARA-TI	$\mathcal{A}$

# FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

#### DATA SHEET

60 KW POWER GENERATING SYSTEM

STATION GPA\_ System #1

PHASING (Se	e Para. 9)				
Generate	or I				
Ph	ase II	120 volts 120 volts 120 volts			
Generate	or II	120 volts	3		
Ph	ase III	120 volts 120 volts			
NEU'TRAL G	ROUNDING (See Pa	ra. 10)			
Generate	or I		٠		
Ground 1	Rod to Neutral Terr	minal	.1		OHMS
Generate	or II				
Ground :	Rod to Neutral Terr	ninal	.1		OHMS
		DATE -	12 July	1963	
		TESTER 4	(ivMaki	-	
	SU	PERVISOR -	Lough Wes	usnd	

QUALITY ASSURANCE

## FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

BRII/114

DATA SHEET

60 KW DIESEL GENERATOR SYSTEM

STATION GPA- System #1
MRC-85 East and West Vans

TERMINAL VOLTAGE (See Para. 11)

Percent Voltage Drop (Generator Panel Board Voltage - Terminal Voltage)x100%
Generator Panel Board Voltage

	Single	Phase 2	208 Volts	1			
	Generator	Panel B	oard Voltage		•		
Transformer I Transformer II	230 N/A			Volts 	Drop		
				2			
	Three	Phase 2	08 Volts	West Van		East	d
	Generator	Panel B	oard Voltage	Terminal Volts	% Volt		<i>7</i> 0
Phase 1 to 2	West	208 Es	ast 210	204	2%	210	
Phase 2 to 3		208	210 210	207	50	210	0%
Phase 3 to 1 Phase 1 to Neutral		207 120	208 118	207	2.5%	118	1.7%
Phase 2 to Neutral Phase 3 to Neutral		120 120	118	119	1.9%	118	1.7%

DATE 12 July 1963

TESTER LAUTHAL

SUPERVISOR LOGA Wanger

QUALITY ASSURANCE Bruched

GEETA COLTA

# FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

## DATA SHEET

#### 60 KW POWER GENERATOR SYSTEM

STATION GPA System #1

BRII/115

GENERATOR TRANSFER OPERATION (See Para. 12)

Generator I

	Normal Operating Co	nditions	Conditions New Duty Unit After Transfer
Voltage Amperage Wattage Frequency	120 140 50 K 60		120 142 50 K 60
Time in Second	s to Effect Transfer	15	Seconds.
Generator II			
73	Normal Operating Co	nditions	Conditions New Duty Unit After Transfer
Voltage Amperage Wattage Frequency	120 142 50 K 60		120 150 56 14 60
Time in Second	s to Effect Transfer	4	_Seconds.

# FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 60 KW DIESEL GENERATING SYSTEM

STATION GPA System #1

#### PARALLELING TEST (See Para. 13)

Generator I (After Paralleling)

Amps	100	Amps
Watts	30 K	Watts
Volts	120	Volts
Frequency	60	cps :
Tachometer Reading		RPM-

#### Generator II (After Paralleling)

Amps	100 Amps
Watts	ZôK Watts
Volts	120 Volts
Frequency	60cps
Tachometer Reading	RPM

DATE 12 July 63

TESTER Chymalle.

SUPERVISOR Brucher

QUALITY ASSURANCE Brucher

GEETA After Cray

#### BIG RALLY II PROJECT

#### DATA SHEET

60 KW POWER GENERATING SYSTEM

STATION GPA-System #2

BRII/111

Generator I

	Gen	nerator 1	
		Name Plate Frequency 60	cps
	Α.	Steady State Load  Minimum Frequency Reading  Maximum Frequency Reading  60	_ cps
	B.	Sudden Change - Full Load to No Load  Minimum Frequency Maximum Frequency Recovery Time  59 61 3	cps cps Seconds
-	· C.	Sudden Change No Load to Full Load  Minimum Frequency  Maximum Frequency  Recovery Time	eps cps Seconds
	Ger	Name Plate Frequency 60	CDS
		Name Plate Frequency	_cps
	Α.	Steady State Load  Minimum Frequency Reading  Maximum Frequency Reading  60	cps cps
	B.	Sudden Change - Full Load to No Load  Minimum Frequency Maximum Frequency Recovery Time  59 61 2	_cps _cps _Seconds
	-G	-Sudden Change No Load to Full Load	
		-Minimum Frequency -Maximum Frequency -Recovery Time	_cps _cps _Seconds
		DATE 12 July 1963 TESTER / WWW.le.	
		QUALITY ASSURANCE Bouch	
		GEETA Clutur of Orange	

BRII/112

#### BIG RALLY II PROJECT

#### DATA SHEET

-60 KW POWER GENERATING SYSTEM

STATION GPA-System #2

LOAD BALANCE (	See	Para.	8)
----------------	-----	-------	----

Generator I	Test I	Test II prrected Unbalance)
Phase I		
Amperes Volts Volts x Amperes	155 120 21700	128 120 15360
Phase II  Amperes  Volts  Volts x Amperes	125 122 15250	129 120 15480
Phase III	• • • • • • • • • • • • • • • • • • • •	
Amperes Volts Volts x Amperes	105 120 12600	130 120 15600
Generator II		
Phase I		
Amperes Volts Volts x Amperes	7.50 1.20 1.800	128 120 15360
Phase II		2
Amperes Volts Volts x Amperes	105 120 1.2600	129 120 15480
Phase III		
Amperes Volts Volts x Amperes	120 120 1,4400	130 120 15600
	TESTER LIVING	y 1963 Calle
	ERVISOR JUNE	Meny 1078
QUALITY AS	SURANCE DI	DO
	GEELA WULLE	1 Creeg

# FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET

60 KW POWER GENERATING SYSTEM

STATION GPA-System #2

PHASING (See Para. 9) Generator I 120 Phase I \_volts Phase II volts Phase III volts Generator II 120 Phase I volts Phase II volts Phase III NEUTRAL GROUNDING (See Para. 10) Generator I Ground Rod to Neutral Terminal\_ OHMS Generator II Ground Rod to Neutral Terminal\_ OHMS

DATE 12 July 1963
TESTER JUMALL.
SUPERVISOR JAMAN Bright
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# FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 60 KW DIESEL GENERATOR SYSTEM

STATION GPA S ystem #2

TERMINAL VOLTAGE (See Para. 11)

Percent Voltage Drop (Generator Panel Board Voltage - Terminal Voltage) x100%
Generator Panel Board Voltage

Single Phase 208 Volts

Transformer I Transformer II	Generator Panel Board Voltage  230  N/A	Terminal Volts 220 N/A	% Volt Drop 4.4%	
	Three Phase 208 Volts  Generator Panel Board Voltage	West Terminal Volts	West % Volt Drop	East East T.V. % Drp
Phase 1 to 2 Phase 2 to 3 Phase 3 to 1 Phase 1 to Neutral Phase 2 to Neutral Phase 3 to Neutral	West 2 08 East 210 208 210 120 120 120 120	204 207 207 117 119	2% .5% 215% 215% 1.9%	210 0% 210 0% 205 1.5% 118 1.7% 118 1.7% 120 0%

DATE 13 July 63

TESTER SUMMARIA

SUPERVISOR SOME Brucher

QUALITY ASSURANCE Brucher

GEETA Wiltry Larger

# FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

## BRII/115

STATION <u>GPA-System</u> #2

#### DATA SHEET

60 KW POWER GENERATOR SYSTEM

GEN	NERATOR TRAI	NSFER OF	PERATION (S	See Para. 1	2)	
	Generator I					
		Normal	Operating C	onditions	Conditions Ne Unit After Tra	
	Voltage Amperage Wattage Frequency		120 140 51K 60		1.20 1.35 4.6K 60	
	Time in Second	ds to Effe	ct Transfer_	11	Seconds.	
	Generator II					
		Normal	Operating C	onditions	Conditions Ne Unit After Tra	
	Voltage Amperage Wattage Frequency	discount description of the second se	1.20 1.35 45K 60		1.20 1.38 4.8K 60	
	Time in Secon	ds to Effe	ct Transfer_	8	Seconds.	
	•		DA	/1	2 July 1963 Mall	-
			TESTE	/ A	ch. Winimed	7
		OTTATION	SUPERVISO	11.64	mobile	ang.
		QUALITY	Y ASSURANC	P. Jan	11/6	-
			CHEET	AUMIT	14 MChai	^

# FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 60 KW DIESEL GENERATING SYSTEM

STATION GPA-System #2

#### PARALLELING TEST (See Para. 13)

#### Generator I (After Paralleling)

Amps	90Amps
Watts	28KWatts
Volts	120Volts
Frequency	60cps
-Tachometer Reading	RPM-

#### Generator II (After Paralleling)

Amps	80Amps
Watts	26KWatts
Volts	120Volts
Frequency	60cps
Tachometer Reading	RPM

DATE 12 July 1963

TESTER \_\_\_\_\_\_\_\_

SUPERVISOR

QUALITY ASSURANCE

GEETA

## BRII/121

### BIG RALLY II PROJECT

#### DATA SHEET

#### 20 KW POWER GENERATING SYSTEM

		STA	TION	GEL		
REC	QUEI	NCY (See Para. 7)				
	Gen	nerator I	į,			
		Name Plate Frequen	cy	60	срв	
	Α.	Steady State Load  Minimum Frequency Reading  Maximum Frequency Reading		60 60	_cps	
	B.	Sudden Change - Full Load to No Load  Minimum Frequency  Maximum Frequency  Recovery Time		59 61 2Se	cps cps	
		Sudden Change - No Load to Full Load - Minimum Frequency - Maximum Frequency - Recovery Time		∑5e	cps cps conds	
	Gen	nerator II				
		Name Plate Frequer	ncy	60	_cps	
	Α.	Steady State Load  Maximum Frequency Reading  Maximum Frequency Reading		60 60	_cps _cps	
	B.	Sudden Change - Full Load to No Load Minimum Frequency Maximum Frequency Recovery Time		59 61 3 Se	_cps _cps conds	
	C.	Minimum Frequency Maximum Frequency Recovery Time DATE 17	July 196	53	cps -cps conds	
	·	SUPERVISOR Confrag	A Hon milig			

# FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

#### BRII/122

#### DATA SHEET

#### 20 KW POWER GENERATING SYSTEM

		STATION_	GEI.	
PHAS	SING (See Para. 8)			
	Generator I			
	Position I Position II		240 120	_Volts _Volts
	Generator II			
	Position I Position II		240 120	_Volts _Volts
NEU'	TRAL GROUNDING (See Para. 9)			
	Generator I			
	Ground Rod to Neutral Terminal	.1		OHMS
	Generator II			
	Ground Rod to Neutral Terminal			OHMS
		*	i	

TESTER C.W. Mahlen
SUPERVISOR GEETA CONTRACT

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# FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 20 KW POWER GENERATOR SYSTEM

		STATION	CFC-LI	
TERMINAL VOLT	AGE (See Para. 10)			
Percent Voltage D	rop (Generator Panelboar	d Voltage - Terr	ninal Voltage)×	100%
	Generator Pa	nelboard Voltage		
	Single Phase 240 Volt	3		
	Generator Panelboard V	olt. Term. Vo	olts % Volt Dr	ор
MRC-80	240	238	.9%	
	Single Phase 120 Vol	ts		
	Generator Panelboard V	olt. Term. Vo	olts % Volt Dr	0.0
-RC-35	denerator ranerodard v		olts /0 volt DI	ОР
MRC-80	120	119	. 9%	
Line 1 to Neutral Line 2 to Neutral	120	120	0%	
	g to see		uly 1963	
	T	ESTER C.W.	Mahlen Curr	lallen
	SUPER	(P) 1.		
	QUALITY ASSUR	0 2	nulee	,
		3611	11	

# FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

BRII/124

## DATA SHEET 20 KW POWER GENERATING SYSTEM

GEN	Generator 1	R OPERATION (See Para. 1	1)	
		Normal Operation Conditions		Conditions New Duty Unit After Transfer
	Voltage Amperage Wattage Frequency	240 100 20,000	,	. 240 90 21.000 60
	Time in Seconds to	Effect Transfer 12	Secon	ds.
	Generator II	Normal Operation Conditions		Conditions New Duty Unit After Transfer
	Voltage	240		2/40
	Amperage Wattage Frequency	21,000 60		100 20,000 60
	Amperage Wattage	21,000	Secon	20 <u>000</u>
	Amperage Wattage Frequency	21,000	Secor	20 <u>000</u>

DATE 17 July 1963

TESTER Clotilable-

SUPERVISOR Grane

GEEIA &

QUALITY ASSURANCE

# FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 20 KW DIESEL GENERATING SYSTEM

	STATION	GEL
1		
PARALLELING TEST (See Para. 12)		· .
Generator I (After Paralleling)		
Amps Watts Volts Frequency Tachometer Reading	30 6K 238 60	Amps Watts Volts cps RPM
Generator II (After Paralleling)		
Amps Watts Volts Frequency Tachometer Reading	30 6K 238 60	Amps Watts Volts cps RPM

DATE 17 July 1963

TESTER COUNCILLO

SUPERVISOR Confre Morral

QUALITY ASSURANCE

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Security Classification				
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AF19(628)-10 b. PROJECT NO.				
c.486L	9b. OTHER RE this report)	PORT NO(\$) (Any other numbers that may be assigned		
d.	ESD TDR 64-	-451, Phase 1, Vol IV		
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